A/73/20

United Nations

# Report of the Committee on the Peaceful Uses of Outer Space

## Sixty-first session (20–29 June 2018)

**General Assembly**
**Official Records**
**Seventy-third Session**
**Supplement No. 20**

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**Sixty-first session**
**(20–29 June 2018)**

United Nations • New York, 2018

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ISSN 0255-1144

[5 July 2018]

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# Chapter I

## Introduction

1. The Committee on the Peaceful Uses of Outer Space held its sixty-first session in Vienna from 20 to 29 June 2018. The officers of the Committee were as follows:

| | |
|---|---|
| *Chair* | Rosa María Ramírez de Arellano y Haro (Mexico) |
| *First Vice-Chair* | Thomas Djamaluddin (Indonesia) |
| *Second Vice-Chair/Rapporteur* | Keren Shahar (Israel) |

### A. Meetings of subsidiary bodies

2. The Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space held its fifty-fifth session in Vienna from 29 January to 9 February 2018, under the chairmanship of Pontsho Maruping (South Africa). The report of the Subcommittee was before the Committee (A/AC.105/1167).

3. The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space held its fifty-seventh session in Vienna from 9 to 20 April 2018 under the chairmanship of Andrzej Misztal (Poland). The report of the Subcommittee was before the Committee (A/AC.105/1177).

### B. Adoption of the agenda

4. At its opening meeting, the Committee adopted the following agenda:

*20 and 21 June 2018*

1. Opening of the session.
2. Adoption of the agenda.
3. Election of officers.
4. UNISPACE+50 high-level segment.

*22–29 June 2018*

5. Statement by the Chair.
6. General exchange of views.
7. Ways and means of maintaining outer space for peaceful purposes.
8. Report of the Scientific and Technical Subcommittee on its fifty-fifth session.
9. Report of the Legal Subcommittee on its fifty-seventh session.
10. Space and sustainable development.
11. Spin-off benefits of space technology: review of current status.
12. Space and water.
13. Space and climate change.
14. Use of space technology in the United Nations system.
15. Future role of the Committee.
16. Other matters.
17. Report of the Committee to the General Assembly.

## C. Election of officers

5. At the 738th meeting of the Committee, on 20 June, Rosa María Ramírez de Arellano y Haro (Mexico) was elected Chair of the Committee for the 2018 session, and André João Rypl (Brazil) for the 2019 session, Thomas Djamaluddin (Indonesia) was elected First Vice-Chair and Keren Shahar (Israel) was elected Second Vice-Chair/Rapporteur for the 2018 and 2019 sessions.

6. At the same meeting, the Committee endorsed the election of Pontsho Maruping (South Africa) as Chair of the Scientific and Technical Subcommittee and Andrzej Misztal (Poland) as Chair of the Legal Subcommittee for the 2018–2019 period.

## D. Organization of work at the sixty-first session

7. In accordance with the agreement of the Committee at its sixtieth session, in 2017, the sixty-first session of the Committee consisted of the following:

(a) UNISPACE+50 high-level segment, held on 20 and 21 June 2018, with the participation of States Members of the United Nations, as well as the broader space community, including United Nations entities, other international intergovernmental and non-governmental organizations and non-governmental entities, including from industry and the private sector;

(b) Regular working session of the Committee, held from 22 to 29 June 2018, with the participation of States members and permanent observers of the Committee.

## E. Membership

8. In accordance with General Assembly resolutions 1472 A (XIV), 1721 E (XVI), 3182 (XXVIII), 32/196 B, 35/16, 49/33, 56/51, 57/116, 59/116, 62/217, 65/97, 66/71 and 68/75, 69/85, 71/90, 72/77 and decisions 45/315, 67/412, 67/528 and 70/518, the Committee on the Peaceful Uses of Outer Space was composed of the following 87 States: Albania, Algeria, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Belarus, Belgium, Benin, Bolivia (Plurinational State of), Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chad, Chile, China, Colombia, Costa Rica, Cuba, Czechia, Denmark, Ecuador, Egypt, El Salvador, France, Germany, Ghana, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Lebanon, Libya, Luxembourg, Malaysia, Mexico, Mongolia, Morocco, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Senegal, Sierra Leone, Slovakia, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syrian Arab Republic, Thailand, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Venezuela (Bolivarian Republic of) and Viet Nam.

## F. Attendance

### 1. UNISPACE+50 high-level segment on 20–21 June 2018

9. Representatives of the following 93 States Members of the United Nations attended the UNISPACE+50 high-level segment: Albania, Algeria, Argentina, Armenia, Australia, Austria, Azerbaijan, Bangladesh, Belarus, Belgium, Bhutan, Bolivia (Plurinational State of), Botswana, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Costa Rica, Cuba, Cyprus, Czechia, Democratic People's Republic of Korea, Denmark, Dominican Republic, Ecuador, El Salvador, Estonia, Finland, France, Germany, Ghana, Greece, Honduras, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kuwait, Lebanon, Libya, Luxembourg, Malaysia, Malta, Mexico, Mongolia, Morocco,

Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Paraguay, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Thailand, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela (Bolivarian Republic of) and Viet Nam.

10. The UNISPACE+50 high-level segment was also attended by observers for the European Union, the Holy See and the Sovereign Order of Malta.

11. Observers for the Office of Legal Affairs, the Office for Disarmament Affairs, the United Nations Liaison Office for Peace and Security in Vienna, the United Nations Office on Drugs and Crime (UNODC) and the Economic and Social Commission for Asia and the Pacific of the Secretariat, the United Nations Development Programme, the United Nations Institute for Disarmament Research (UNIDIR), the International Civil Aviation Organization (ICAO), the United Nations Industrial Development Organization (UNIDO), the World Health Organization (WHO), the World Meteorological Organization (WMO) and the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization also attended the UNISPACE+50 high-level segment.

12. The UNISPACE+50 high-level segment was attended by observers for the following intergovernmental organizations: Asia-Pacific Space Cooperation Organization (APSCO), Association of Remote Sensing Centres in the Arab World (ARSCAW), Regional Centre for Remote Sensing of the North African States (CRTEAN), European Organization for Astronomical Research in the Southern Hemisphere (ESO), European Space Agency (ESA), European Telecommunications Satellite Organization (EUTELSAT-IGO), International Mobile Satellite Organization (IMSO), Inter-Islamic Network on Space Sciences and Technology (ISNET), International Organization of Space Communications (Intersputnik) and International Telecommunications Satellite Organization (ITSO).

13. The UNISPACE+50 high-level segment was attended by observers for the following non-governmental organizations: African Association of Remote Sensing of the Environment, African Organization of Cartography and Remote Sensing (AOCRS), Association of Space Explorers (ASE), Committee on Earth Observation Satellites (CEOS), Committee on Space Research (COSPAR), European Science Foundation, European Space Policy Institute (ESPI), EURISY, Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation, International Academy of Astronautics (IAA), International Association for the Advancement of Space Safety (IAASS), International Astronautical Federation (IAF), International Air Transport Association (IATA), International Astronomical Union (IAU), International Institute for Applied Systems Analysis (IIASA), International Institute of Space Law (IISL), International Law Association (ILA), International Society for Photogrammetry and Remote Sensing (ISPRS), International Space University (ISU), National Space Society (NSS), Prince Sultan bin Abdulaziz International Prize for Water (PSIPW), Scientific Committee on Solar-Terrestrial Physics (SCOSTEP), Secure World Foundation (SWF), Space Generation Advisory Council (SGAC), The Planetary Society (TPS), University Space Engineering Consortium-Global (UNISEC-Global) and World Space Week Association (WSWA).

### 2. Session of 22–29 June 2018

14. Representatives of the following 78 States members of the Committee attended the session: Albania, Algeria, Argentina, Armenia, Australia, Austria, Azerbaijan, Belarus, Belgium, Bolivia (Plurinational State of), Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechia, Denmark, Ecuador, Egypt, El Salvador, France, Germany, Ghana, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Lebanon, Libya, Luxembourg, Malaysia, Mexico, Mongolia, Morocco, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Peru, Philippines, Poland, Portugal,

Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Slovakia, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Thailand, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela (Bolivarian Republic of) and Viet Nam.

15. Observers for the Office for Disarmament Affairs, the Economic and Social Commission for Asia and the Pacific, UNIDIR, the United Nations Liaison Office for Peace and Security in Vienna, WHO and WMO attended the session.

16. The session was attended by observers for the following intergovernmental organizations with permanent observer status with the Committee: APSCO, CRTEAN, ESO, ESA, EUTELSAT-IGO, IMSO and ITSO.

17. The session was also attended by observers for the following non-governmental organizations with permanent observer status with the Committee: African Association of Remote Sensing of the Environment, ASE, COSPAR, EURISY, ESF, ESPI, ISNET, IAA, IAASS, IAF, IAU, IISL, ISU, ISPRS, NSS, PSIPW, SWF, SGAC, UNISEC-Global and WSWA.

18. A list of representatives of States members of the Committee, States not members of the Committee, United Nations entities and other organizations attending the session is contained in A/AC.105/2018/INF/1 and A/AC.105/2018/INF/1/Corr.1.

### G. Adoption of the report of the Committee

19. After considering the various items before it, the Committee, at its 753rd meeting, on 29 June 2018, adopted its report to the General Assembly containing the recommendations and decisions set out below.

## Chapter II

## UNISPACE+50 high-level segment

20. Pursuant to General Assembly resolution 72/79 and the agreement reached by the Committee on the Peaceful Uses of Outer Space at its sixtieth session, the Committee, at its sixty-first session, held a high-level segment on 20 and 21 June 2018, open to all States Members of the United Nations, to mark the fiftieth anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50).

21. The UNISPACE+50 high-level segment enjoyed the participation of representatives at the ministerial level, vice-ministerial level, heads of space agencies, astronauts, the United Nations Champion for Space and other dignitaries who cited the achievements of the Committee over the course of 50 years, the significant benefits space contributed to the attainment of the Sustainable Development Goals, the importance of the peaceful uses of outer space for all humankind and the need to preserve outer space for current and future generations.

22. The programme of the UNISPACE+50 high-level segment included opening addresses, the endorsement of the draft resolution entitled "Fiftieth anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space: space as a driver of sustainable development" and addresses by representatives of Member States and permanent observers of the Committee.

23. The programme also included the donation, by ESA astronaut Paolo Nespoli and ESA Director General, Johann-Dietrich Wörner, of a United Nations Sustainable Development Goals flag that had been flown at the International Space Station; the unveiling of the UNISPACE+50 stamps of the United Nations Postal Administration by the United Nations Champion for Space, Scott Kelly; the opening of the UNISPACE+50 exhibition; the announcement of the prize-winners of the Prince Sultan bin Abdulaziz International Prize for Water (PSIPW) by the Chairman of

PSIPW, Prince Khaled bin Sultan bin Abdulaziz Al Saud; the live in-flight call from the International Space Station; and the high-level panel of the Inter-Agency Meeting on Outer Space Activities (UN-Space).

24. Opening addresses were delivered by António Guterres, Secretary-General of the United Nations, through a video message; guest of honour, Alexander Van der Bellen, President of Austria; Yury Fedotov, Director-General of the United Nations Office at Vienna; and Simonetta Di Pippo, Director of the Office for Outer Space Affairs of the Secretariat. The high-level segment was also addressed by the United Nations Champion for Space, Scott Kelly, and by the crew of the International Space Station, through the live in-flight call.

25. The Secretary-General, in his video message, recalled the 50 years since the Outer Space Treaty. He noted that humanity succeeded in overcoming political differences on Earth, to achieve great progress in outer space. He emphasized the influence outer space had on captivating our imagination and stressed outer space can help build a better world for all.

26. The guest of honour, the President of Austria, congratulated the Committee on the Peaceful Uses of Outer Space and the Office for Outer Space Affairs on the special occasion of UNISPACE+50, as the culmination of a series of high-level events which began in 1968, when the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE) was held in Vienna. He noted that over the decades, UNISPACE I and its follow-up conferences UNISPACE II in 1982 and UNISPACE III in 1999 had delivered pioneering strategies and landmark outcomes, in particular such as the protection of the space environment and the access of developing countries to space science and its benefits. He further noted that UNISPACE+50 represented a starting point for a new approach to space policy and emphasized the importance of the "Space2030" agenda, which would act as a driver of development, ensuring that all members of the international community could benefit equally from the potential of space activities and, in doing so, would contribute to the implementation of the 2030 Agenda for Sustainable Development.

27. The Director-General of the United Nations Office at Vienna noted that space technology was being increasingly used by the Vienna-based organizations and entities across the United Nations system in their daily work to support Member States across the three pillars of peace and security, human rights and development. He emphasized the unique role of the Office for Outer Space Affairs as the gateway to space in the United Nations system with its comprehensive mandate, addressing a broad spectrum of space activities, from science to law, engaged with a multitude of stakeholders with the objective of extending the benefits of space science and technology on a global scale and strengthening the use of space for sustainable development.

28. The Director of the Office for Outer Space Affairs, recalling the uniqueness of UNISPACE+50 as a joint endeavour to move the boundaries of space cooperation even further for the benefit of all humankind, stressed that the vision and actions contained in the UNISPACE+50 draft resolution to continue to develop the "Space2030" agenda and its implementation plan would set the course for strengthening the contribution of space activities and space tools to achieving internationally agreed development goals. She noted that this was particularly important when the international community had committed to the goals and major targets of the global frameworks adopted by the international community in 2015, namely, the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction 2015–2030 and the Paris Agreement, which required stronger space governance and supporting structures at all levels, including improved space-based data and space infrastructure.

29. The Chair of the Committee noted that preparations for UNISPACE+50 over the past three years had engaged the Committee, its two subcommittees, States members of the Committee, permanent observer organizations, the Office for Outer Space Affairs and the broader space community to collectively assess the achievements of

the Committee over nearly 60 years and outline priority areas for future consideration. She acknowledged that through this assessment, the Committee collectively agreed on seven UNISPACE+50 thematic priority areas covering a broad range of contemporary space matters of concern to major spacefaring nations and emerging space nations alike.

30. The crew of the International Space Station, in their live in-flight call, stressed the importance of harnessing the potential of space for all humankind and of furthering international cooperation in the exploration and use of outer space for peaceful purposes.

31. The States participating in the high-level segment endorsed the resolution entitled "Fiftieth anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space: space as a driver of sustainable development" (A/AC.105/L.313), to be recommended to the General Assembly for adoption at its seventy-third session.

32. In the UNISPACE+50 high-level segment, statements were made by representatives of the following Member States: Algeria, Argentina, Australia, Austria, Belarus, Belgium, Bhutan, Brazil, Canada, Chile, China, Colombia, Costa Rica, Cuba, Cyprus, Czechia, Democratic People's Republic of Korea, Denmark, France, Germany, Ghana, Greece, India, Indonesia, Iraq, Iran (Islamic Republic of), Israel, Italy, Japan, Kazakhstan, Luxembourg, Malaysia, Mexico, Mongolia, Nepal, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Paraguay, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, Thailand, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela (Bolivarian Republic of) and Viet Nam. The representative of Iraq made a statement on behalf of the Group of 77 and China, and the representative of the Plurinational State of Bolivia made a statement on behalf of the Group of Latin American and Caribbean States.

33. In the UNISPACE+50 high-level segment, the observer for the European Union made a statement on behalf of the European Union and its member States. The observer for the Holy See also made a statement.

34. In the UNISPACE+50 high-level segment, statements were made by representatives of the following international intergovernmental and non-governmental organizations and United Nations entities: APSCO, ESA, ESO, EURISY, IAF, IISL, SWF, UNISEC-Global and WSWA, and the Economic and Social Commission for Asia and the Pacific and WMO.

35. The participants in the UNISPACE+50 high-level segment noted the historic fiftieth anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space and recalled that UNISPACE+50 was a common endeavour to strengthen the Committee for Peaceful Uses of Outer Space and its subcommittees, supported by the Office for Outer Space Affairs, as unique platforms for global governance of outer space activities, and expressed support for the work of the Committee and the Office for Outer Space Affairs in that regard.

36. The participants in the UNISPACE+50 high-level segment emphasized the importance of building stronger partnerships and of a continued collective approach to advancing international cooperation in the peaceful uses of outer space, in particular in view of the growing complexities and diversification of space activities and with the aim to strengthen the use of space towards the path of achieving the Sustainable Development Goals.

37. The participants in the UNISPACE+50 high-level segment noted the importance of working together towards further development of a "Space2030" agenda and implementation plan as part of the ongoing development of a comprehensive strategy, based on the UNISPACE+50 preparatory process, which would contribute to a stronger global governance of outer space activities and strengthen the contribution

of space activities and space tools to the achievement of the global agendas addressing long-term sustainable development concerns of humankind.

38. The participants in the UNISPACE+50 high-level segment noted the need to ensure the long-term sustainability of outer space activities and, in particular, the need to address the significant challenge posed by space debris, and were convinced of the need to strengthen, through the Committee on the Peaceful Uses of Outer Space, international cooperation to achieve those goals and contribute to realizing a shared vision for the future in the exploration and use of outer space for peaceful purposes and for the benefit and in the interest of all humankind.

39. The participants in the UNISPACE+50 high-level segment underscored the role of space science and technology and their applications in meeting challenges to global development, the fostering of regional and interregional cooperation in space activities for sustainable development and the need for enhanced capacity-building in the use of space science and technology for the benefit of all countries.

40. The UN-Space high-level panel entitled "United Nations: reinforcing synergies for UNISPACE+50 and beyond" was organized as an integral part of the high-level segment at the level of heads of agencies. The panel discussion was opened and moderated by the Director of the Office for Outer Space Affairs and consisted of the following speakers: the Executive Director of UNODC; the Executive Secretary of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization; the Assistant Secretary-General for Legal Affairs and head of the Office of the Legal Counsel; the Managing Director of the Directorate of External Relations and Policy Research and Deputy to the Director General, UNIDO; the Director of the Office of Operations, Legal and Technology Services, Bureau for Management Services, United Nations Development Programme; and the Director of the Information and Communications Technology and Disaster Risk Reduction Division, Economic and Social Commission for Asia and the Pacific.

41. In a follow-up to the panel discussion, UN-Space issued a joint statement in which it highlighted the common aspiration of participating United Nations entities to strengthen the capacities of Member States for sustainable development, which could be achieved through the increased integration of space science, technology and their applications, as well as space law and policy, in national development strategies, and recognized the need for an integrated and coordinated approach based on the principles of equality and inclusiveness to ensure that the benefits of outer space shall be accessible to all States irrespective of their level of economic, social, scientific or technical development.

42. The high-level segment included an event on 20 June to mark the official opening of the UNISPACE+50 exhibition, held in the Vienna International Centre from 18 to 23 June 2018. The exhibition, organized by the Office for Outer Space Affairs, comprised contributions from 43 exhibitors and concluded with a day open to the public on Saturday, 23 June, which was attended by more than 350 visitors. The exhibitors were as follows: Agoria, Airbus, Algerian Space Agency (ASAL), APSCO, Association of Italian Space Enterprises, AUSTROSPACE, Brazilian Space Agency, CANEUS International, Centre for the Development of Industrial Technology (CDTI), Centre national d'études spatiales (CNES), China Aerospace Science and Industry Corporation, China Aerospace Science and Technology Corporation, China Manned Space Agency, China National Space Administration, China Satellite Navigation Office, Delta State University, Government of South Africa, German Aerospace Center (DLR), DigitalGlobe, ESO, ESA, European Union, For all Moonkind, ICE Cubes Service, Indian Space Research Organization (ISRO), secretariat of the International Charter on Space and Major Disasters, ispace Europe, Israel Space Agency, Italian Space Agency, King Abdulaziz City for Science and Technology, Korea Aerospace Research Institute, National Disaster Reduction Centre of China (NDRCC), Centre for Space Science and Technology Education in Asia and the Pacific, Romanian Space Agency, RT, Sierra Nevada Corporation, SGAC, PSIPW,

Twenty First Century Aerospace Technology (21AT), United Arab Emirates Space Agency, UK Space Agency, UNISEC-Global and Office for Outer Space Affairs.

43. The participants in the UNISPACE+50 high-level segment expressed appreciation to the Office for Outer Space Affairs for the successful preparation of UNISPACE+50 and a number of related side events, and congratulated the Office for its more than a quarter century's presence in Vienna.

44. The statements delivered during the UNISPACE+50 high-level segment are available on the website of the Office for Outer Space Affairs.

*UNISPACE+50 Symposium on 18 and 19 June*

45. In accordance with the plan of work for UNISPACE+50 as agreed by the Committee (see A/AC.105/L.297 and A/71/20), the two days prior to the sixty-first session, 18 and 19 June 2018, had been allocated to the UNISPACE+50 Symposium and outreach events.

46. The UNISPACE+50 Symposium, held on 18 and 19 June, opened with a special session entitled "Past, present and future of the peaceful uses of outer space" and was followed by four dedicated panel sessions on "Space and industries", "Space for women", "Space and civil society" and "Space and youth". The UNISPACE+50 Symposium concluded with a panel of heads of space agencies, with the participation of 26 space agencies of countries from all geographical regions.

47. The UNISPACE+50 Symposium benefited from the participation of more than 400 participants from government agencies, space agencies, private companies, universities, research centres and civil society and brought together experts from the entire spectrum of the space sector, who addressed the role of space science and technology in fostering global development and cooperation from various perspectives and with respect to various subjects.

48. The UNISPACE+50 Symposium benefited from the diversity of the panels, which highlighted the current pace of developments in the space arena and the importance of the international community standing together to address future challenges in outer space, and underlined the importance of the United Nations being at the forefront of those developments.

49. The opening special session, entitled "Past, present and future of the peaceful uses of outer space", was designed to address the growing complexity of outer space activities in a timely manner. In particular, the session addressed the larger involvement of the private sector in space activities and the concurrent need to ensure alignment of national and international policies in that regard. The session participants also looked at the premises of international cooperation on the peaceful uses of outer space, emphasizing the benefits of existing international space law as a way to keep checks and balances, and considered the usefulness of addressing issues related to liability, the registry of objects launched into outer space, long-term sustainability of outer space activities and confidence-building measures.

50. The panel on "Space and industries" addressed the importance of strengthening cooperation with industry and the private sector in order to build global partnerships for the attainment of the 2030 Agenda for Sustainable Development. The panel noted several pioneering advances in space science and technology applications that had enabled the provision of services and infrastructure that would not have been possible only a few years ago, such as launching a constellation of satellites to image the entire planet on a daily basis and monitor changes in the environment, the use of artificial intelligence to process satellite imagery which was used to generate highly precise and quickly available information on crop yields, and the use of new technology to mitigate space debris for the sustainability of the outer space environment.

51. The panel on "Space for women" looked at the challenges related to gender imbalance in the space sector, including in science, technology, engineering and mathematics education, and the low numbers of women engaged in astronomy in

several countries. The panel presented several ways to improve the gender balance in space industry and the space sector in general, including the introduction of new, flexible career models, such as temporary leading positions and the introduction of part-time leading roles and team management positions, and the panel emphasized the importance of female role models and support to reconcile work and family life. A special screening of the interactive documentary, "Madame Mars: Women and the Quest for Worlds Beyond", was held as part of the panel.

52. The panel on "Space and civil society" highlighted the importance of raising awareness of the societal benefits of space and capacity-building and presented several ongoing initiatives and projects that used space technologies and applications to benefit societies, such as the use of the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (also referred to as the International Charter on Space and Major Disasters) and its universal access policy for facilitating activation by national civil protection agencies in case of disasters; the holding of the "Zero-G" summit as a way to facilitate synergies among government agencies, the private sector and civil society in the context of outer space activities; and space architecture projects to design infrastructure for use in outer space or on the Moon.

53. The panel on "Space and youth" focused on the importance of giving young people inspiration about the role and value of space and space activities, in order to ensure the sustainability of outer space activities in the long term. In that regard, the United Nations Champion for Space, Scott Kelly, stressed the need to continue awareness-raising efforts to attract young people to science and engineering academic programmes that were the basis for outer space exploration.

54. The panel of the heads of space agencies benefited from the participation of heads of, or high-ranking officers of, APSCO, ESA, the European GNSS Agency (GSA) and 26 space agencies of countries from all geographical regions.

55. The representatives of space agencies reiterated their commitment to supporting the Committee on the Peaceful Uses of Outer Space and the Office for Outer Space Affairs in the elaboration and subsequent implementation of the "Space2030" agenda and recognized the Committee's unique role at the global level in addressing global challenges such as the long-term sustainability of outer space activities, fostering dialogue among spacefaring nations and emerging space nations and developing countries, and facilitating discussions on a broad range of technical and legal topics.

56. The UNISPACE+50 Symposium also had several side events and receptions, including the following:

(a) Presentation of capacity-building programme, by ISRO;

(b) Special joint event on the United Nations/Japan Aerospace Exploration Agency (JAXA) Cooperation Programme on KiboCUBE entitled "Capacity-building through small satellite development", organized by JAXA;

(c) "Contribution to Moon settlement", by Moon Village Association;

(d) "My planet, my future: space for the Sustainable Development Goals", organized by CANEUS International;

(e) "Climate change challenges as a priority of the 2030 Agenda", organized by the Mexican Space Agency;

(f) Briefing to the representatives of the Parliaments of States members of the European Union, organized by the Office for Outer Space Affairs;

(g) "China's space cooperation: towards a shared future and benefits for all", by China;

(h) "Venμs: satellite technology for sustainable development", by France and Israel;

(i) "50 years of Earth observation: What's next?", by the International Society for Photogrammetry and Remote Sensing;

(j) "Italian space economy for sustainable development goals: seminar", by Italy;

(k) Legal symposium entitled "The role of intergovernmental organizations in the application and development of space law", co-organized by ESA, ESPI and the University of Cologne.

57. On the margins of the UNISPACE+50 Symposium, the Office for Outer Space Affairs amended or signed several declarations on cooperation or memorandums of understanding with its partners, including the Airbus Defence and Space, DLR, Geo-Informatics and Space Technology Development Agency, ESA, JAXA (concerning the extension of the Cooperation Programme on CubeSat Deployment from the International Space Station Japanese Experiment Module (Kibo), known as "KiboCUBE"), the China Manned Space Agency (concerning cooperation on the utilization of China's space station), the China National Space Administration (concerning cooperation on the Belt and Road Initiative Space Information Corridor) and the Ministry of Science and Information Communications Technology and the Korea Aerospace Research Institute of the Republic of Korea.

58. Several space object models were donated to the Office for Outer Space Affairs during the UNISPACE+50 Symposium, including the donation of a Venµs satellite model by Israel and France; a Chinese Space Station model, donated by the China Manned Space Agency; a BeiDou Navigation Satellite model, donated by the BeiDou Navigation Satellite Office; the United Nations Sustainable Development Goals flag that had been flown to the International Space Station, donated by ESA astronaut Paolo Nespoli; and the satellite and launcher models donated by Pakistan. The models donated would be installed in the permanent exhibition of the Office on the ground floor of the E-Building of the Vienna International Centre.

59. The Committee noted that further information on the UNISPACE+50 Symposium, its panels, the exhibition and other related side events of 18 and 19 June was contained in a conference room paper (A/AC.105/2018/CRP.19/Rev.1) prepared by the Office for Outer Space Affairs.

# Chapter III

## Recommendations and decisions

### A. General statements

60. Statements were made by representatives of the following States members of the Committee during the general exchange of views: Algeria, Argentina, Brazil, Canada, Chile, China, Czechia, Denmark, Ecuador, France, Germany, Greece, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Italy, Japan, Kenya, Mexico, Nigeria, Oman, Pakistan, Poland, Republic of Korea, Romania, Russian Federation, South Africa, United Arab Emirates and United States. Statements were also made by the representative of South Africa on behalf of the Group of African States, by the representative of Ecuador on behalf of the Group of 77 and China, and by the representative of the Plurinational State of Bolivia on behalf of the Group of Latin American and Caribbean States. The observers for the African Association of Remote Sensing of the Environment, APSCO, CRTEAN, EUTELSAT-IGO, ISNET, NSS, SGAC and SWF also made statements.

61. At the 743rd meeting, the Chair delivered a statement highlighting the growth in the membership of the Committee as evidence that the international community attached increasing importance to cooperation in outer space affairs. She noted that the General Assembly had recognized that, at the global level, the Committee and its subcommittees, assisted by the Office for Outer Space Affairs, formed a unique

platform for international cooperation in space activities. She underlined that the Committee worked in a uniquely collegial way, with States working together irrespective of their political, technical or economic situation in order to find constructive, consensual solutions to important issues relating to the mandate of the Committee.

62. At the 744th meeting, the Director of the Office for Outer Space Affairs made a statement in which she underlined, among other things, that the overall UNISPACE+50 process, including the road towards achieving the "Space2030" agenda, was aimed at building synergies between space science, technology, law and policy to foster global governance for the benefit of developing countries in particular. In the Director's words, the Committee was the only intergovernmental platform at the global level that had a broad and comprehensive mandate in the area of international cooperation in the peaceful uses of outer space, and the mandates and programmes of the Office for Outer Space Affairs reflected this. The Director also outlined the plans of the Office to further strengthen its partnership with Member States, international organizations and other space actors from the broader space community.

63. On behalf of the United Nations, the Director expressed gratitude to China, France, Israel and Pakistan for donating or lending models of their national space objects to the Office's permanent exhibition at the United Nations Office at Vienna.

64. The Committee heard the following presentations:

(a) "ISEF2 and beyond: towards international space exploration", by the representative of Japan;

(b) "United States national space traffic management policy", by the representative of the United States;

(c) "An institute for space debris prevention and control", by the observer for IAASS;

(d) "UNISEC-Global challenge: 2030-ALL", by the observer for UNISEC-Global;

(e) "Development of green rocket propellant in Poland", by the representative of Poland;

(f) "First results of the AMADEE-18 Mars landing simulation in the Omani desert", by the representative of Austria;

(g) "SGAC: From UNISPACE III to today", by the observer for SGAC;

(h) "A Hellenic academic research initiative for the manned exploration of Mars: the example of habitats and analogue rock sites", by the representative of Greece;

(i) "China's cooperation plan on lunar and deep space exploration", by the representative of China.

65. The Committee welcomed Bahrain, Denmark and Norway as the newest States members of the Committee, bringing its membership to 87 States. The Committee also welcomed the European Science Foundation, represented by the European Space Sciences Committee, and UNISEC-Global as its newest permanent observers.

66. Some delegations expressed the view that, thanks to the comprehensive draft resolution endorsed during the high-level segment and recommended to the General Assembly for adoption at its seventy-third session, UNISPACE+50 offered the first milestone opportunity since the preceding Conference, UNISPACE III, was held in 1999, to address overarching long-term development concerns.

67. Some delegations expressed the view that one of the important objectives of UNISPACE+50 had created an incentive for reaching a consensus on the "Space2030" agenda. For space activities to contribute to the achievement of global initiatives such

as the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction 2015–2030 and the Paris Agreement on climate change, global partnerships needed to be strengthened. One way of doing this was to enhance the role and the capacity of the regional centres for space science and technology education, affiliated to the United Nations, and the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER).

68. Some delegations expressed the view that, given the increasing complexity of the space agenda, the renewed commitment to human deep space exploration and the inclusion of sustainable development on Earth and the sustainability of outer space activities in the global agenda as key items, it was very timely for the Committee to launch the development of the "Space2030" agenda.

69. The view was expressed that the UNISPACE+50 process, which built on the success of UNISPACE III, was recognition that private sector involvement in space exploration and space applications was becoming increasingly important. The UNISPACE+50 process also showed how Governments, the United Nations and civil society could partner to advance innovative space applications for the benefit of everyone.

70. The view was expressed that it was important for all States, as well as for the Committee and its subcommittees, to ensure that the values expressed in the Charter of the United Nations would always be the foundation of humanity's endeavours in the boundless expanses of space.

71. Some delegations expressed the view that outer space should be explored and used exclusively for peaceful purposes. In their exploration and use of outer space, including the Moon and other celestial bodies, States should realize a shared vision for the future that was in the best interests of all countries, irrespective of their degree of economic or scientific development, and in conformity with international law.

72. Some delegations expressed the view that the safety, security and sustainability of outer space activities would be ensured if they were carried out in accordance with applicable international law, rules, regulations and resolutions.

73. Some delegations reaffirmed the importance of preventing an arms race and the placement of weapons of any kind in outer space, with an appropriate and effective verification mechanism. They called upon all States, in particular those with major space capabilities, to actively ensure that outer space was used for peaceful purposes and to refrain from taking any action contrary to that purpose, to prevent an arms race in outer space and to refrain from placing weapons of any kind in outer space. In that regard, transparency and confidence-building measures could play a useful role.

74. Some delegations reaffirmed their strict adherence to the principles governing the activities of States in the exploration and use of outer space, including those outlined in General Assembly resolutions 1962 (XVIII) and 1884 (XVIII), namely: universal and equal access to outer space for all countries without discrimination, regardless of their level of scientific, technical and economic development, and the equitable and rational use of outer space for the benefit and in the interests of all humankind; the non-appropriation of outer space, including the Moon and other celestial bodies, which cannot be appropriated by any State, by claim of sovereignty, by means of use or occupation or by any other means; commitment by States for national activities in outer space, whether carried on by governmental agencies or by non-governmental entities; the non-militarization of outer space, which should never be used for the placement and/or deployment of weapons of any kind, and, as the province of humankind, should be used strictly for the improvement of living conditions and the pursuit of peace among peoples that inhabit the Earth; and international cooperation in the development of space activities, especially those referred to in the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries.

75. Some delegations expressed the view that the steady increase in the number of applications for Committee membership in recent years was a clear sign that interest in the exploration and use of space for peaceful purposes was growing and that there was recognition of the role played by space science and technology and its applications in the achievement of the Sustainable Development Goals.

76. Some delegations expressed the view that the Committee had a vital role to play in bridging the gap between spacefaring nations and emerging space nations by enhancing cooperation in capacity-building for space technology and its applications.

77. Some delegations expressed the view that the challenge of developing an agenda for the Committee and its subcommittees based on a broad and long-term vision aimed, in the first place, at fulfilling the Sustainable Development Goals, implied recognition that the role and activities of the Committee and the Office should be strengthened and that working methods should be improved.

78. The view was expressed that the Committee's work to foster international cooperation and develop solutions to multilateral space policy issues continued to be intrinsic to ensuring that outer space continued to be used for the benefit of humankind in a sustainable and peaceful manner, and that increased reliance of humankind on space technology, the continuous growth of space actors and the growing threat posed by space debris were significant challenges that called for the renewed impetus of the critical work of the Committee.

79. Some delegations expressed the view that the Committee and its subcommittees continued to be the suitable forums to discuss matters related to the peaceful uses of outer space including the Moon and other celestial bodies and that interaction between the Scientific and Technical Subcommittee and the Legal Subcommittee should be strengthened so that space law and global space governance were developed at the same pace as major scientific and technical advances.

80. Some delegations expressed the view that international cooperation in space activities should be inclusive, taking into consideration the level of technological development of, in particular, developing countries and countries with specific geographical environments, thus enhancing the use of outer space for peaceful purposes.

81. The view was expressed that space cooperation in the twenty-first century would be one of the most powerful mechanisms to bring countries closer together and forge constructive partnerships, and that cooperation would require isolationism to be reduced while encouraging countries to refrain from engaging in unilateral action and commit to multilateralism. The delegation expressing this view was also of the view that regional and global challenges facing humankind could not be addressed effectively unless multilateral participation and collaboration were promoted.

82. The view was expressed that outer space was a tool for peace, diplomacy and collaboration among countries and that international collaboration made space exploration possible. International collaboration remained absolutely essential, given the demands and challenges of space.

83. The Committee expressed its appreciation for the organization of the following events held on 22 June:

(a) A panel meeting entitled "Earth observation solutions for the Sustainable Development Goals", organized by ESA;

(b) A lunchtime event entitled "United Arab Emirates Space+50", organized by the United Arab Emirates;

(c) An evening event entitled "Interregional space policy dialogue between the Asia-Pacific region and Europe: towards space policy for socioeconomic development", jointly organized by ESPI and the Asia-Pacific Regional Space Agency Forum.

## B. Ways and means of maintaining outer space for peaceful purposes

84. In accordance with paragraph 14 of General Assembly resolution 72/77, the Committee continued its consideration, as a matter of priority, of ways and means of maintaining outer space for peaceful purposes and its consideration of the broader perspective of space security and associated matters that would be instrumental in ensuring the safe and responsible conduct of space activities, including ways to promote international, regional and interregional cooperation to that end.

85. The representatives of Indonesia, Japan, Pakistan, the Russian Federation and the United States made statements under the item. During the general exchange of views, statements relating to the item were also made by other member States.

86. The Committee had before it a working paper submitted by the Russian Federation entitled "Survey of the problem of discretion exercised by States in interpreting basic legal principles and norms related to safety and security in outer space" (A/AC.105/2018/CRP.17).

87. The Committee heard a presentation by the representative of Japan entitled "New efforts of the Asia-Pacific Regional Space Agency Forum".

88. The Committee agreed that through its work in the scientific, technical and legal fields, as well as through the promotion of international dialogue and the exchange of information on various topics relating to the exploration and use of outer space, it had a fundamental role to play in enhancing transparency and confidence-building among States, as well as in ensuring that outer space was maintained for peaceful purposes.

89. Some delegations expressed the view that the international legal framework governing space-related activities must allow for the development of new activities and new technologies that might be used in space, while adhering to the fundamental principles outlined in the United Nations treaties on outer space, and that, although the international community had taken a number of steps to secure outer space from uses that were anything other than peaceful, a long-lasting commitment to those goals required international cooperation that coherently addressed the diverse issues faced by humankind.

90. The view was expressed that the risk that outer space may be used for military purposes was inherent to the development of space technologies, as many space technologies could serve dual functions, as shown by the integration of commercial satellite communications technology into military communications and surveillance infrastructure. The United Nations should continue to play a decisive role in outer space affairs and the peaceful uses of outer space and should review the existing body of space law in a spirit of international cooperation aimed at using outer space for peaceful purposes.

91. The view was expressed that in the past years, the methods of work under the present agenda item, to be considered as a matter of priority, had not evolved to a satisfactory degree, which might imply that the majority of States members of the Committee did not consider it to be a matter of priority. In that regard, the consideration of this item should be given a thoroughly new dimension that would allow States to initiate a productive dialogue through a substantive analytical endeavour and form a shared vision of realistic ways to increase safety and security in outer space. The degree of success in that work would determine the outlook for the preservation of outer space for peaceful purposes. Therefore, the Committee needed in that regard a well-defined agenda and a commonly agreed road map for ensuring space safety and security in outer space.

92. The view was expressed that in the light of the lack of commitment of States members to undertaking substantial work under this item, the Committee continued to lose its relevant analytical skills and competence, while some national educational and research establishments conducted studies in which they were applying their knowledge and logic for the purposes of both interpreting existing norms and forming

a new kind of institutional matrix, such as global space governance or global governance of outer space activities.

93. The view was expressed that the Committee continued to have the authority to promote international cooperation in space in its scientific, technical and legal aspects, as mandated by the General Assembly in its resolution 1472 (XIV) A of 12 December 1959; and continued to be a subsidiary organ of the General Assembly with a political character, which signified that it was important to address international space cooperation beyond a merely technical perspective and to keep up with current issues objectively.

94. The view was expressed that as part of the United Nations system, the Committee should engage in interaction with all entities of that system in order to achieve the Committee's fundamental objective of maintaining peace and security in outer space. In that connection, the delegation expressing that view was also of the view that that consideration of issues within the Committee should be conducted in parallel with the consideration of the prevention of an arms race in outer space by the First Committee and the Conference on Disarmament, as the Committee had responsibilities to strengthen the international basis for outer space to be used solely for peaceful purposes, which, inter alia, could include the further development of international space law.

95. The view was expressed that the Committee continued to be the prime United Nations body for deliberation on all aspects of space activities and to keep abreast of important developments in other forums, such as the Conference on Disarmament. The delegation expressing that view was also of the view that negotiations must continue on the prevention of an arms race in outer space and underscored the importance of work of the Group of Governmental Experts established pursuant to General Assembly resolution 72/250 on further practical measures for the prevention of an arms race in outer space.

96. The view was expressed that the report of the Secretary-General on transparency and confidence-building measures in outer space activities (A/72/65) and the deliberations within the Committee on that report, as well as specific inputs provided by Member States, could serve as important inputs for providing guidance to the Office for Outer Space Affairs, as well as for the possible evolution of the Committee's mandate to address emerging challenges to the peaceful use of outer space. Those deliberations could also help identify opportunities for how the Office could, within existing resources, better assist Member States in implementing specific recommendations of the Group of Governmental Experts established pursuant to General Assembly resolution 72/250.

97. The view was expressed that in view of the success of the report of the Group of Governmental Experts of 2013 (A/68/189) and its recommendations, and the direct collaboration between the Office for Outer Space Affairs and the Office for Disarmament Affairs in developing options for improved coordination in the United Nations system on transparency and confidence-building measures, as well as other relevant accomplishments of the Committee, there were no convincing arguments that would advocate for the need for action to be taken by the Committee relating to the so-called "weaponization" of outer space. Since the Committee first began its work nearly six decades ago, it had been clear that there would be separately chartered efforts to deal specifically with space disarmament issues; those would include forums such as the First Committee of the General Assembly, the Conference on Disarmament and the Disarmament Commission.

98. The view was expressed that it was important to continue to pursue non-legally binding, voluntary measures, such as "best practice" guidelines, transparency and confidence-building measures, and norms of safe and responsible behaviour in outer space, which would, in addition to aiming to preserve the space environment for future generations, offered the best opportunity to avoid potentially provocative, aggressive actions in outer space that might trigger dangerous misinterpretations and miscalculations and could be seen as escalatory in a crisis or conflict.

99. The view was expressed that the regulation of the safety and security of space operations should be developed within the framework of a set of guidelines for the long-term sustainability of outer space activities. That should be followed by a rational analysis, in accordance with their intensity and other criteria, of various types of harmful interference in space activities, and by the development of methods for mitigating persisting hazards which occur under circumstances when consultations regarding their mitigation cannot be conducted by means of objective reasons, or if such consultations are concluded without having achieved results.

100. The view was expressed that many States members of the Committee took a cautious approach to analysing the legal basis for, and the modalities of, resorting, in a hypothetical case, to self-defence in accordance with the Charter of the United Nations as applied to outer space, and that this categorical non-acceptance of the proposal to discuss the concept of the right to self-defence in the context of the Committee constituted negligence with respect to the tremendous responsibility for ensuring peace and security in outer space that rested with every State member of the Committee. The delegation expressing that view was also of the view that the analysis of the existing national practices regarding self-defence in outer space would lead to the understanding that the resort to self-defence was not conditional on a direct use of weapons and, moreover, was not directly linked with the matter of the existence or non-existence of weapons in outer space.

101. The view was expressed that any discussion concerning the right of self-defence would be counterproductive in the context of the collective past efforts of States to negotiate a legally binding treaty on the prevention of an arms race in outer space.

102. The view was expressed that the new National Space Strategy, approved by the President of the United States of America, would seek not only to advance the benefits of space for the United States but also to ensure that all nations could benefit from the tremendous potential that space offered.

103. The Committee noted with satisfaction the continuous developments in a number of cooperative endeavours that were being pursued at the international, regional and interregional levels by various actors, such as States and international intergovernmental and non-governmental organizations, and emphasized that such cooperation was essential for strengthening the peaceful uses of outer space and for assisting States in the development of their space capabilities. In that regard, the Committee noted the important role that bilateral and multilateral agreements played in promoting common space exploration objectives and cooperative and complementary space exploration missions.

104. Some delegations expressed the view that the United Nations was essential for strengthening and developing cooperation and collaboration among countries, in particular with regard to scientific and space technology, and for maximizing space resources for the common prosperity, security and the long-term sustainability of outer space activities. The delegations expressing that view were also of the view that solid cooperation should enhance information-sharing and technical cooperation among countries in line with the principles of friendship, equal partnership and mutual respect.

105. The Committee noted that the Government of Nigeria would host the seventh African Leadership Conference on Space Science and Technology for Sustainable Development, to be held in Abuja from 5 to 9 November 2018.

106. The Committee also noted that the Government of the Bolivarian Republic of Venezuela and the Bolivarian Agency for Space Activities had hosted the second Venezuelan conference on space technology, which had been held in Caracas from 18 to 20 September 2017.

107. The Committee further noted that the twenty-fourth session of the Asia-Pacific Regional Space Agency Forum, on the theme of space technology for enhanced governance and development, had been held in Bangaluru, India, from

14 to 17 November 2017. The twenty-fifth session would be held in Singapore from 6 to 9 November 2018.

108. The Committee noted that the eleventh meeting of the Council of APSCO, hosted by the Government of the Islamic Republic of Iran and organized by the Iranian Space Agency, had been held in Tehran from 11 to 14 September 2017. The tenth anniversary high-level forum, organized by APSCO and the Chinese Government, would be held in Beijing from 14 to 16 November 2018, with the theme "Community of shared future through space cooperation".

109. The Committee recommended that at its sixty-second session, in 2019, consideration of the item on ways and means of maintaining outer space for peaceful purposes should be continued, on a priority basis.

## C. Report of the Scientific and Technical Subcommittee on its fifty-fifth session

110. The Committee took note with appreciation of the report of the Scientific and Technical Subcommittee on its fifty-fifth session (A/AC.105/1167), which contained the results of its deliberations on the items considered by the Subcommittee in accordance with General Assembly resolution 72/77.

111. The Committee expressed its appreciation to Pontsho Maruping (South Africa) as Chair for her able leadership during the fifty-fifth session of the Subcommittee.

112. The representatives of Argentina, Australia, Austria, China, Germany, Indonesia, Japan, Pakistan, the Russian Federation, South Africa and the United States made statements under the item. Statements were also made by the representative of Ecuador on behalf of the Group of 77 and China and by the representative of the Plurinational State of Bolivia on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by other member States.

113. The Committee heard the following presentations:

(a) "Satellite-based remote sensing for drought risk reduction on a national level", by the representative of Germany;

(b) "The construction and development of the BeiDou navigation system", by the representative of China;

(c) "The use of ASPOS OKP system in the interests of ensuring the safety of space operations and increasing awareness about the situation in high orbits", by the representative of the Russian Federation;

(d) "A nanosatellite mission for passive reflectometry and dosimetry", by the representative of Austria.

### 1. United Nations Programme on Space Applications

#### (a) Activities of the United Nations Programme on Space Applications

114. The Committee took note of the discussion of the Subcommittee under the item on the activities of the United Nations Programme on Space Applications, as reflected in the report of the Subcommittee (A/AC.105/1167, paras. 49–69).

115. The Committee had before it the following:

(a) Report on the United Nations/South Africa Symposium on Basic Space Technology: Small Satellite Missions for Scientific and Technological Advancement (Stellenbosch, South Africa, 11–15 December 2017) (A/AC.105/1180);

(b) Summary of the United Nations/Argentina Workshop on Applications of Global Navigation Satellite Systems (Falda del Carmen, Argentina, 19–23 March 2018) (A/AC.105/2018/CRP.3).

116. The Committee noted that the priority areas of the Programme were environmental monitoring, natural resource management, satellite communications for tele-education and telemedicine applications, disaster risk reduction, the use of global navigation satellite systems (GNSS), the Basic Space Science Initiative, climate change, the Basic Space Technology Initiative, and the Human Space Technology Initiative, and biodiversity and ecosystems.

117. The Committee took note of the activities of the Programme carried out in 2017 and planned in 2018, as presented in the report of the Subcommittee (A/AC.105/1167, paras. 63–65).

118. The Committee noted that the Government of Japan, through the Kyushu Institute of Technology, and the Politecnico di Torino and Instituto Superiore Mario Boella, in collaboration with the Istituto Nazionale di Ricerca Metrologica, had continued to provide long-term fellowship programme opportunities for students from developing countries under the United Nations/Japan Long-term Fellowship Programme on Nanosatellite Technologies, and the United Nations/Italy Long-term Fellowship Programme on Global Navigation Satellite Systems and Related Applications, respectively.

119. The Committee also noted the Drop Tower Experiment Series, which was a fellowship programme of the Office for Outer Space Affairs, undertaken in collaboration with the Center of Applied Space Technology and Microgravity and DLR, in which students could study microgravity by performing experiments in a drop tower. In the fourth cycle of the fellowship programme, a team from the Warsaw University of Technology had been awarded the fellowship through competitive selection. A new, fifth cycle was under way.

120. The Committee further noted the continued collaboration between the Office for Outer Space Affairs and JAXA, in implementing the United Nations/Japan Cooperation Programme on CubeSat Deployment from the International Space Station Japanese Experiment Module (Kibo), known as "KiboCUBE". The programme had been launched in September 2015. After the selection of the team from the University of Nairobi for the first round, a team from the Universidad del Valle of Guatemala had been selected for the second round, and the Mauritius Research Council operating under the aegis of the Ministry of Technology, Communication and Innovation had been selected for the third round; applications for the fourth round would be announced later in 2018. The objective of the Cooperation Programme was to promote international cooperation and capacity-building in space technology and its applications under the Human Space Technology Initiative by providing opportunities for educational and research institutions in developing countries to deploy small satellites (CubeSats) from the Japanese Experiment Module (Kibo).

121. The Committee expressed its appreciation to the Office for Outer Space Affairs for the manner in which the activities of the Programme had been implemented with the limited funds available. The Committee also expressed its appreciation to the Governments and intergovernmental and non-governmental organizations that had sponsored the activities. The Committee noted with satisfaction that further progress was being made in the implementation of the activities of the Programme for 2018.

122. The Committee once again expressed its concern that the financial resources available to the United Nations Programme on Space Applications remained limited and appealed to the donor community to support the Programme through voluntary contributions.

123. The Committee requested the Office to continue to work with the Scientific and Technical Subcommittee on defining the priorities of the Programme.

124. The Committee noted with satisfaction that the United Nations Programme on Space Applications had continued to emphasize, promote and foster cooperation with Member States at the regional and global levels to support the regional centres for space science and technology education, affiliated to the United Nations.

125. The Committee noted that the Office for Outer Space Affairs continued to closely collaborate with the regional centres for space science and technology education, affiliated to the United Nations, namely the African Regional Centre for Space Science and Technology Education — in English Language, the African Regional Centre for Space Science and Technology — in French Language; the Centre for Space Science and Technology Education in Asia and the Pacific, the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean, the Regional Centre for Space Science and Technology Education for Western Asia and the Regional Centre for Space Science and Technology Education in Asia and the Pacific (China). In that connection, the Committee noted with appreciation that the host countries of the regional centres for space science and technology education, affiliated to the United Nations, were providing significant financial and in-kind support to the centres.

126. Some delegations expressed the view that it was imperative to redouble the efforts to extend to all States the benefits derived from outer space activities, and that in line with the enhancement of international cooperation in outer space activities, it would be vital to promote the wider participation of developing countries through active assistance by advanced spacefaring nations and the Office for Outer Space Affairs. In that connection, the delegations expressing that view were also of the view that capacity-building and technical assistance were key factors in the expansion of the abilities of those working in the field, permitting them to gain expertise and knowledge from nations with experience in outer space activities.

127. The Committee noted the important role of the Programme in supporting capacity-building in space science technology and its applications, particularly in developing countries.

### (b) International Satellite System for Search and Rescue

128. The Committee noted with satisfaction that the International Satellite System for Search and Rescue currently had 40 member States and two participating organizations and that other entities were also interested in becoming associated with the programme in the future. The Committee noted with appreciation that the worldwide coverage for emergency beacons, carried on vessels and aircraft and by individual users around the world, had been made possible by the space segment, which consisted of transponders carried on 5 polar-orbiting, 5 geostationary and 30 newly added medium Earth orbit satellites (plus 4 upcoming ones) provided by Canada, France, India, the Russian Federation and the United States, along with the European Organization for the Exploitation of Meteorological Satellites, as well as by the ground-segment contributions of 29 other countries. The Committee also noted that, in 2017, alert data from the system had helped to save more than 2,000 lives in 876 search and rescue events worldwide.

## 2. Space technology for sustainable socioeconomic development

129. The Committee took note of the discussion of the Subcommittee under the item on space technology for sustainable socioeconomic development, as reflected in the report of the Scientific and Technical Subcommittee (A/AC.105/1167, paras. 76–96).

130. The Committee endorsed the recommendations and decisions on the item made by the Subcommittee and its Working Group of the Whole (A/AC.105/1167, para. 96).

131. The Committee recalled that the General Assembly, in its resolution 72/77, had reiterated the need to promote the benefits of space technology and its applications in the major United Nations conferences and summits for economic, social and cultural development and related fields, and had recognized that the fundamental significance of space science and technology and their applications for global, regional, national and local sustainable development processes should be promoted in the formulation of policies and programmes of action and their implementation, including through efforts towards achieving the objectives of those conferences and summits and in implementing the 2030 Agenda for Sustainable Development.

132. The Committee noted the crucial role of space data and technology in the public health domain and welcomed the establishment of a new item entitled "Space and global health" on the agenda of the Subcommittee, under a multi-year workplan, and that a working group had been established under that item, with Antoine Geissbühler (Switzerland) as Chair.

### 3. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment

133. The Committee took note of the discussion of the Subcommittee under the item on matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment, as reflected in the report of the Subcommittee (A/AC.105/1167, paras. 97–111).

134. The Committee noted the international and regional initiatives undertaken to promote and use remote sensing data to support socioeconomic and sustainable development, in particular for the benefit of developing countries.

135. In the course of discussions, delegations reviewed national and international cooperation programmes in a number of key areas in which remote sensing data were crucial for well-informed decision-making. Examples included greenhouse gas emission monitoring from space; various monitoring and visualization platforms; air quality monitoring for aerosols and pollutants; monitoring of atmospheric processes; climate change, including essential climate variables monitoring; disaster management and vulnerability assessments; ozone loss; natural resource management; ecosystems management; forestry; hydrology; meteorology and severe weather forecasting; land use and land cover change monitoring; sea surface temperature and wind monitoring; environmental change; glacier mapping and studies; crop and soil monitoring; irrigation; precision agriculture; groundwater detection; space weather; health impacts; security; law enforcement; mineral mapping; and urban development.

136. Some delegations expressed the view that it was important to ensure that the Office for Outer Space Affairs was empowered with the necessary resources to assist a greater number of countries in gaining access to the benefits of space science and technology and its applications, and that not having the Office integrated into the United Nations development system affected its access to funds to support cooperation programmes, despite the successful activities carried out in 2017 under the Programme on Space Applications in collaboration with Member States and other international organizations.

137. Some delegations expressed the view that the development of applications based on remote sensing greatly contributed to the achievement of the 2030 Agenda for Sustainable Development and in realizing the Sustainable Development Goals, in particular for addressing the triple challenges of poverty, inequality and unemployment in Africa, where space solutions such as for precision agriculture or water management were seen as very important to implement and promote.

138. The Committee noted that while the relevance and use of remote sensing technology and other space science and technology applications was continuously increasing, greater capacity-building was also needed, in particular in developing countries, to effectively incorporate and apply such technologies and solutions in planning and development decision-making processes. The increasing number of workshops and training opportunities offered in that domain was seen as beneficial.

139. The Committee noted the important role played by the Group on Earth Observations and CEOS in improving the sharing of remote sensing data and worldwide access to data, and also noted the strong commitment of many Member States to supporting those initiatives.

140. The Committee also took note of important cooperative efforts such as the BRICS Remote Sensing Satellite Constellation to enhance cooperation for the sharing and exchange of remote sensing data to meet the current and future challenges of

sustainable development and the cooperation between the Office for Outer Space Affairs and PSIPW with regard to the advancement of space science and technology to address the growing problem of water scarcity around the globe.

141. The Committee noted that in the framework of APSCO, the Data Sharing Service Platform had provided remote sensing data from nine Chinese Earth observation satellites, with more than 400,000 satellite images already acquired and some 8,000 images used for research work and disaster management, and with a second phase of the Platform planned to expand its resources.

142. The Committee also noted that a number of Member States continued to implement Earth observation programmes driven by user needs and primarily aimed at the societal needs of their respective countries, with numerous Earth observation satellites in orbit or planned to be launched, whether for the high-resolution optical imagery, synthetic aperture radar images or meteorological imagery, aiming at addressing important national priorities such as agriculture and crop inventory or better weather forecasting.

### 4. Space debris

143. The Committee took note of the discussion of the Subcommittee under the item on space debris, as reflected in the report of the Subcommittee (A/AC.105/1167, paras. 112–146).

144. The Committee endorsed the decisions and recommendations of the Subcommittee on the item (A/AC.105/1167, paras. 145 and 146).

145. The Committee noted with satisfaction that the endorsement by the General Assembly, in its resolution 62/217, of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space, was instrumental for mitigation of space debris, and urged those countries that had not yet done so to consider implementing the Guidelines on a voluntary basis.

146. The Committee noted with appreciation that many States and international intergovernmental organizations were already implementing space debris mitigation measures consistent with the Space Debris Mitigation Guidelines of the Committee and/or the Inter-Agency Space Debris Coordination Committee (IADC) Space Debris Mitigation Guidelines, and that other States had developed their own space debris mitigation standards based on those guidelines.

147. In addition, the Committee noted that some States were using the Space Debris Mitigation Guidelines of the Committee and/or the IADC Space Debris Mitigation Guidelines, the European Code of Conduct for Space Debris Mitigation, International Organization for Standardization standard 24113:2011 (Space systems: space debris mitigation requirements), and ITU recommendation ITU-R S.1003 (Environmental protection of the geostationary-satellite orbit) as reference points in their regulatory frameworks for national space activities. The Committee also noted that some States had cooperated in the space surveillance and tracking support framework funded by the European Union and in the ESA space situational awareness programme.

148. The Committee noted that an increasing number of States were adopting concrete measures to mitigate space debris, including the improvement of the design of launch vehicles and spacecraft, the de-orbiting of satellites, passivation, life extension, end-of-life operations and the development of specific software and models for space debris mitigation.

149. Some delegations expressed the view that the mitigation of space debris and the limitation of its creation should be among the priorities of the work of the Committee and its subsidiary bodies.

150. Some delegations expressed the view that the registration of space objects and their parts, including those that were no longer functional, was particularly important to ensure the safety of missions in orbit, access to basic services and the long-term sustainability of outer space activities.

151. Some delegations expressed the view that there was a need for the detection, tracking, monitoring and reduction of space debris and for the elimination of that debris.

152. Some delegations expressed the view that there was a need for differentiated responsibility in the clearing of space debris in line with the space activities of each Member State.

153. Some delegations expressed the view that the issue of space debris should be addressed in a manner that would not jeopardize the development of the space capabilities of developing countries.

154. Some delegations expressed the view that measures taken to address the issue of space debris should not impose an undue burden on the space programmes of developing nations.

155. The view was expressed that the space debris issue should be addressed in a manner that would ensure that the cost of the debris removal process was not passed on to countries with emerging space capabilities.

156. The view was expressed that criteria and procedures for active removal or intentional destruction of space objects, either functioning or non-functioning, needed to be thoroughly deliberated under the auspices of the United Nations in order to guarantee the effectiveness of the measures and ensure that they were accepted by stakeholders.

### 5. Space-system-based disaster management support

157. The Committee took note of the discussion of the Subcommittee under the item on space-system-based disaster management support, as reflected in the report of the Subcommittee (A/AC.105/1167, paras. 147–167).

158. The Committee welcomed the activities organized by UN-SPIDER aimed at promoting greater understanding, acceptance and commitment by countries with respect to ways of accessing and developing capacity to use all types of space-based information in support of the full disaster management cycle. In that regard, the Committee took note of the UN-SPIDER technical advisory services and the UN-SPIDER knowledge portal (www.un-spider.org), a web-based platform for information, communication and process support that fostered the exchange of information, the sharing of experiences, capacity-building and technical advisory support.

159. Some delegations called upon the Office for Outer Space Affairs, through UN-SPIDER, to intensify its capacity-building activities through technical advisory missions and training programmes, in particular in developing countries, to strengthen disaster risk preparedness and emergency response at the national level.

160. In her statement, the Director of the Office for Outer Space Affairs thanked the Governments of Austria, China and Germany for their commitment to and support of UN-SPIDER since its inception, including through the implementation of UN-SPIDER activities coordinated by the UN-SPIDER offices in Bonn, Germany, Beijing and Vienna.

161. The Committee noted with appreciation that the UN-SPIDER regional support offices were a strong pillar of UN-SPIDER and contributed to the programme's activities in the areas of capacity-building, institutional strengthening and knowledge management.

162. The Committee noted that UN-SPIDER would participate in the Asian Ministerial Conference on Disaster Risk Reduction to be held in Mongolia in July 2018, and hold its eighth annual conference in Beijing in October 2018 as one of the commitments of the Office for Outer Space Affairs to supporting the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030.

163. The Committee also noted the valuable contribution of the ongoing activities of Member States to increase the availability and use of space-based solutions in support of disaster management, including the Sentinel Asia project and its coordination of emergency observation requests through the Asian Disaster Reduction Centre, the emergency mapping service of the European Earth Observation Programme (Copernicus) and the International Charter on Space and Major Disasters.

### 6. Recent developments in global navigation satellite systems

164. The Committee took note of the discussion of the Subcommittee under the item on recent developments in global navigation satellite systems, as reflected in the report of the Subcommittee (A/AC.105/1167, paras. 168–193).

165. The Committee noted that the International Committee on Global Navigation Satellite Systems (ICG) continued its successful annual meetings aimed at bringing together the providers and users of GNSS to promote its use and integration into infrastructures, particularly in developing countries. The Committee also noted that the twelfth meeting of ICG had been held in Kyoto, Japan, and that the thirteenth meeting of ICG would be held in Xi'an, China.

166. The Committee noted that the United States remained engaged in activities to ensure compatibility and interoperability among the different services.

167. The Committee noted that the civilian services of the Global Navigation Satellite System (GLONASS) of the Russian Federation were provided free of direct user charges and were accessible, effective and fully responsive to the needs of different users. It was also noted that the System of Differential Correction and Monitoring, an augmentation of GLONASS, continued to be updated and was to be used in civil aviation for enhancing position accuracy for navigation. A network of ground-based stations had been developed for the continuous monitoring of the characteristics of the GLONASS system and other GNSS in order to assess the quality of their performance.

168. It was also noted that the European Union's Galileo satellite navigation system was expected to be fully operational in 2020, and was intended to improve services and provide new business opportunities in a wide variety of applications in many sectors of the economy worldwide.

169. The Committee noted that through its development and deployment of the BeiDou Navigation Satellite System (BDS), China had been actively participating in implementing the goals of ICG, and that a model of the BDS-3 satellite had been donated to the Office.

170. The Committee noted that Japan's Quasi-Zenith Satellite System (QZSS) was expected to start service, including the centimetre-level augmentation service, in November 2018.

171. The Committee noted that the United Nations/Argentina Workshop on Applications of Global Navigation Satellite Systems had been held in Falda del Carmen, Argentina, from 19 to 23 March 2018. The National Commission for Space Activities (CONAE) of Argentina had hosted the Workshop on behalf of the Government of Argentina. The Workshop's overarching objective had been to facilitate cooperation in applying GNSS solutions through the exchange of information and the scaling-up of capacities among countries in the region.

172. The Committee expressed its appreciation to the Office for Outer Space Affairs for its continued support as the executive secretariat of ICG and its Providers' Forum, and for the organization of workshops and training courses focusing on capacity-building in the use of GNSS-related technologies in various fields of science and industry.

## 7. Space weather

173. The Committee took note of the discussion of the Subcommittee under the item on space weather, as reflected in the report of the Subcommittee (A/AC.105/1167, paras. 194–210).

174. The Committee noted that space weather was addressed under UNISPACE+50 thematic priority 4 (International framework for space weather services) (A/AC.105/1171) and noted with appreciation the work by the Expert Group on Space Weather of the Scientific and Technical Subcommittee as the implementation mechanism for that thematic priority.

175. The Committee noted that the Expert Group had held meetings on the margins of the fifty-fifth session of the Scientific and Technical Subcommittee, in 2018, as well as intersessionally, with the aim, among other things, of stressing the importance of thematic priority 4, and the need for a new international coordination group that could deliver improved international collaboration and coordination for improved space weather services and ultimately enhance global resiliency against the adverse effects of space weather.

176. The Committee welcomed the extension of the mandate of the Expert Group on Space Weather to 2021.

177. The Committee noted that the Office had aligned the space weather-related activities it implemented through its capacity-building efforts and those it carried out in its capacity as the executive secretariat of ICG.

178. Some delegations expressed the view that in relation to a priority activity of the Expert Group on Space Weather on the establishment of an international coordination group for space weather, in close collaboration with COSPAR, ICAO, WMO and the International Space Environmental Service, the structure and the working mechanism of such a group could be elaborated only in the course of the implementation of specific joint projects by the participating entities.

## 8. Near-Earth objects

179. The Committee took note of the discussion of the Subcommittee under the item on near-Earth objects, as reflected in the report of the Subcommittee (A/AC.105/1167, paras. 211–233).

180. The Committee noted with appreciation the progress made by the International Asteroid Warning Network (IAWN) and the Space Mission Planning Advisory Group (SMPAG), which had been established in 2014 pursuant to recommendations on an international response to the near-Earth object impact threat endorsed by the Committee on the Peaceful Uses of Outer Space at its fifty-sixth session and welcomed by the General Assembly in its resolution 68/75. The Committee noted the status of IAWN and SMPAG activities since their last reporting to the Scientific and Technical Subcommittee (as contained in paras. 213–216; 220–230 and 233 of document A/AC.105/1167).

181. The Committee further noted the importance of work carried out by the SMPAG Ad Hoc Working Group on Legal Issues, which had been established in 2016 and was coordinated by DLR, and which continued to consider legal issues relevant to the work of SMPAG in the context of existing international treaties governing activities in outer space.

182. The Committee noted that the IAWN steering committee had held its fifth meeting on 30 January 2018, on the margins of the fifty-fifth session of the Scientific and Technical Subcommittee, and that there were five new signatories to the Statement of Intent for Participation in IAWN, bringing the total number of signatories to 13. The signatories were observatories and space institutions from China, Colombia, Mexico, the Republic of Korea, the Russian Federation and the United States, as well as Europe, and even included an amateur observer from the

United Kingdom. A new web page was being launched by IAWN, hosted by the University of Maryland (United States), and was available at http://iawn.net.

183. The Committee also noted that, since the fifty-fourth session of the Scientific and Technical Subcommittee, SMPAG had held two meetings: its ninth meeting had been held in Toulouse, France, on 11 October 2017 and had been hosted by CNES; and its tenth meeting had been held on 31 January 2018, on the margins of the fifty-fifth session of the Subcommittee. Both meetings had been supported by the Office for Outer Space Affairs in its role as the secretariat of SMPAG, pursuant to General Assembly resolution 71/90. The Committee noted the progress made under the SMPAG workplan, as contained in the reports on those meetings, available at http://smpag.net.

184. The Committee further noted that the Austrian Research Promotion Agency (FFG) and the China National Space Administration had become members of SMPAG, and that the European Southern Observatory had become the fifth permanent observer of the Group. SMPAG currently had 18 members (space agencies) and 5 permanent observers (other entities).

185. The Committee noted that ESA, the current SMPAG Chair, had been elected as Chair for another two-year term (2018–2020).

186. The Committee noted that IAWN and SMPAG were continuing to work with the Office for Outer Space Affairs on issues related to general communication on near-Earth objects to the public, communication with Member States in the event of an impact warning and the possibility of including a near-Earth object module as part of the Office's UN-SPIDER technical advisory missions on disaster preparedness. The latter was related to the work of IAWN to provide information to relevant parties, such as emergency response agencies.

187. The Committee noted that the next meetings of IAWN and SMPAG would be held in Knoxville, Tennessee, United States, on 18 and 19 October 2018, in conjunction with the meeting of the Division for Planetary Sciences of the American Astronomical Society, to be held from 21 to 26 October 2018.

188. The Committee noted with appreciation the United Nations publication entitled "Near-Earth objects and planetary defence" (ST/SPACE/73), jointly produced by IAWN, SMPAG and the Office for Outer Space Affairs, outlining the work in the area of strengthening international cooperation in mitigating a potential near-Earth object threat, and which had been made available at the sixty-first session of the Committee.

### 9. Use of nuclear power sources in outer space

189. The Committee took note of the discussion of the Subcommittee under the item on the use of nuclear power sources in outer space, as reflected in the report of the Subcommittee (A/AC.105/1167, paras. 234–251).

190. The Committee endorsed the report and recommendations of the Subcommittee and the Working Group on the Use of Nuclear Power Sources in Outer Space, reconvened under the chairmanship of Sam A. Harbison (United Kingdom) (A/AC.105/1167, para. 251, and annex II).

191. The Committee acknowledged that some States and an international intergovernmental organization were developing, or considering developing, legal and regulatory instruments on the safety of the use of nuclear power sources in outer space, taking into account the contents and requirements of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space and of the Safety Framework for Nuclear Power Source Applications in Outer Space.

192. The Committee stressed the value and importance of implementing the voluntary Safety Framework for Nuclear Power Source Applications in Outer Space, which had been developed by the Subcommittee together with the International Atomic Energy Agency.

193. Some delegations expressed the view that the risk of potential collisions of nuclear-powered space objects in orbit and the incidents or emergencies that could be created by the accidental re-entry of such objects into the Earth's atmosphere, as well as their impact on the ecosystem, was a matter of concern. In that connection, the delegations expressing that view were also of the view that more attention should be given to those issues through adequate strategies, long-term planning and regulations, including the Safety Framework for Nuclear Power Sources Applications in Outer Space.

## 10. Long-term sustainability of outer space activities

194. The Committee took note of the discussion by the Subcommittee under the item on the long-term sustainability of outer space activities, as reflected in the report of the Subcommittee (see A/AC.105/1167, paras. 252–274).

195. The Committee endorsed the recommendations and decisions on the item endorsed by the Subcommittee regarding the Working Group on the Long-term Sustainability of Outer Space Activities, reconvened under the chairmanship of Peter Martinez (South Africa) (see A/AC.105/1167, para. 274).

196. The Committee had before it the following:

(a) Note by the Secretariat entitled "Guidelines for the long-term sustainability of outer space activities" (A/AC.105/L.315);

(b) Conference room paper by the Chair of the Working Group entitled "Guidelines for the long-term sustainability of outer space activities" (A/AC.105/2018/CRP.20);

(c) Conference room paper by the Chair of the Working Group entitled "Draft guidelines for the long-term sustainability of outer space activities" (A/AC.105/2018/CRP.21);

(d) Conference room paper by the Chair of the Working Group entitled "Report of the Working Group on the Long-term Sustainability of Outer Space Activities" (A/AC.105/2018/CRP.22);

(e) Conference room paper by the Chair of the Working Group entitled "Report of the Working Group on the Long-term Sustainability of Outer Space Activities" (A/AC.105/2018/CRP.22/Rev.1);

(f) Conference room paper by Australia, Canada, France, Germany, Israel, Italy, Japan, Netherlands, New Zealand, the United Kingdom and the United States entitled "Long-term sustainability of outer space activities: Proposal to adopt and refer to the General Assembly for endorsement of the Compendium of Guidelines for the Long-term Sustainability of Outer Space Activities" (A/AC.105/2018/CRP.26, A/AC.105/2018/CRP.26/Rev.1 and A/AC.105/2018/CRP.26/Rev.2);

(g) Non-paper by the Chair of the Working Group entitled "Possible layout scheme for a compendium of guidelines for the long-term sustainability of outer space activities based on the already agreed texts from A/AC.105/L.315";

(h) Non-paper by the Chair of the Working Group entitled "Possible language for the report of the Committee on the Peaceful Uses of Outer Space";

(i) Non-paper by Switzerland entitled "Proposal for the establishment of a new working group on safety and transparency in space activities".

197. The Committee agreed that the long-term sustainability of outer space activities was an important topic, noting that the international space community was looking for leadership in this area.

198. The Committee noted that the Chair of the Working Group had held brainstorming sessions on the margins of the UNISPACE+50 Symposium to provide delegations with an opportunity to exchange ideas on how to conclude the work under

the Working Group's current mandate and how to carry forward discussions on topics for future consideration after the sixty-first session of the Committee.

199. The Committee noted that, during the present session of the Committee, the Working Group had met and used available interpretation services, and that the Chair of the Working Group and interested delegations had held extensive informal consultations.

200. The Committee noted that the Working Group had undertaken eight years of substantial work and expressed its appreciation for the time and energy invested by the Working Group members, the members of the expert groups and the members of the informal translation and terminology reference group. In particular, the Committee commended the Chair of the Working Group for his tireless efforts.

201. The Committee recalled the Working Group's extended programme of work (see A/71/20, para. 137) and noted that during its mandate, the Working Group had reached consensus on a preamble and 21 guidelines for the long-term sustainability of outer space activities (A/AC.105/2018/CRP.20).

202. The Committee noted that, while the Working Group had not been able to conclude its consideration of all guidelines within its current mandate, discussions had continued at the current session of the Committee on a number of draft guidelines for which consensus was not reached, and that this progress was reflected in conference room paper A/AC.105/2018/CRP.21.

203. The Committee encouraged States and international intergovernmental organizations to consider implementing guidelines for the long-term sustainability of outer space activities on a voluntary basis, and to share their experiences with implementation under the Subcommittee's agenda item on the long-term sustainability of outer space activities.

204. The Committee took note of the section in the preamble entitled "Review of implementation and updating of the guidelines" (A/AC.105/2018/CRP.20, paras. 21–24) and noted that it was important to develop clear procedures for: (a) sharing experiences, practices and lessons learned from implementing the guidelines; (b) reviewing and updating the guidelines; and (c) introducing and considering new candidate guidelines.

205. The Committee noted that the Working Group had discussed various options for continuing work related to the topic of the long-term sustainability of outer space activities, including extending the current Working Group by one year with a mandate to carry out specific tasks and creating a new working group on safety and transparency in space activities. However, at the present session, the Working Group had not been able to reach a consensus on the details of any proposal.

206. The Committee noted that States members of the Committee may develop further written proposals on ways to continue work on the topic of the long-term sustainability of outer space activities, that such proposals may be considered at the fifty-sixth session of the Scientific and Technical Subcommittee, and, as warranted, at the fifty-eighth session of the Legal Subcommittee.

207. The Committee noted that at the present session, the Working Group had discussed its report, that the Chair had produced working papers containing drafts of the final Working Group report (A/AC.105/2018/CRP.22 and A/AC.105/2018/CRP.22/Rev.1), but that the Working Group had been unable to reach consensus on the text of its final report.

208. The Committee noted that the Working Group had discussed, but had not been able to reach consensus on how to refer the preamble and guidelines on the long-term sustainability of outer space activities to the General Assembly.

## 11. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union

209. The Committee took note of the discussion of the Subcommittee under the item on the examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of ITU, as reflected in the report of the Subcommittee (A/AC.105/1167, paras. 275–289).

210. Some delegations expressed the view that the geostationary orbit, a limited natural resource clearly in danger of saturation, must be used rationally, efficiently and economically, in conformity with the provisions of the ITU Radio Regulations, so that countries or groups of countries may have equitable access to those orbits and frequencies, taking into account the special needs of the developing countries and the geographical situation of particular countries. Further, the geostationary orbit was not subject to national appropriation by claim of sovereignty, by means of use, repeated use or occupation, or by any other means, and that its utilization should be governed by applicable international law, including the Outer Space Treaty as well as instruments and regulations of ITU.

211. Some delegations expressed the view that the utilization by States of the geostationary orbit on the basis of "first come, first served" was unacceptable and that the Subcommittee, with the involvement of ITU, should develop a regime guaranteeing equitable access to orbital positions for all States. The delegations expressing that view were also of the view that the current system of reserving slots in the geostationary orbit was being abused by a number of satellite operators, and that the first step in addressing the issue could be the establishment of communication between the Subcommittee and ITU-R Study Group 4, for the inclusion of an item on increasing the efficiency of the use of the geostationary orbit on the agenda of the World Radio Communication Conference to be held in 2019.

212. The view was expressed that consideration should be given to the possibility of amending the name of this agenda item by adding "and non-geostationary", thus expanding the scope of the item to include geostationary and non-geostationary orbits.

## 12. Draft provisional agenda for the fifty-sixth session of the Scientific and Technical Subcommittee

213. The Committee took note of the discussion of the Subcommittee under the item on the draft provisional agenda for its fifty-sixth session, as reflected in the report of the Subcommittee (A/AC.105/1167, paras. 290–294).

214. The Committee endorsed the recommendations and decisions on the item made by the Subcommittee (A/AC.105/1167, paras. 291–293).

215. On the basis of the deliberations of the Subcommittee at its fifty-fifth session, the Committee agreed that the following items should be considered by the Subcommittee at its fifty-sixth session:

1. Adoption of the agenda.
2. Statement by the Chair.
3. General exchange of views and introduction of reports submitted on national activities.
4. United Nations Programme on Space Applications.
5. Space technology for sustainable socioeconomic development.

6. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment.

7. Space debris.

8. Space-system-based disaster management support.

9. Recent developments in global navigation satellite systems.

10. Space weather.

11. Near-Earth objects.

12. Long-term sustainability of outer space activities.

13. Use of nuclear power sources in outer space.

(Work for 2019 as reflected in the multi-year workplan of the Working Group (A/AC.105/1138, para. 237 and annex II, para. 9))

14. Space and global health.

(Work under a multi-year workplan of the Working Group to be determined (A/AC.105/1167, para. 96 and annex I, para. 14))

15. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union.

(Single issue/item for discussion)

16. Draft provisional agenda for the fifty-seventh session of the Scientific and Technical Subcommittee, including identification of subjects to be dealt with as single issues/items for discussion or under multi-year workplans.

17. Report to the Committee on the Peaceful Uses of Outer Space.

216. The Committee agreed that the Working Group of the Whole and the Working Group on the Use of Nuclear Power Sources in Outer Space should be reconvened at the fifty-sixth session of the Scientific and Technical Subcommittee.

217. The Committee also agreed that a working group under the item on space and global health, with Antoine Geissbühler (Switzerland) as Chair, should be convened at the fifty-sixth session of the Subcommittee. The Committee further agreed that the Chair of the newly established working group, together with the Secretariat, would present to the fifty-sixth session of the Subcommittee, in 2019, a proposal for a multi-year workplan for that working group, taking into account the role of the Expert Group on Space and Global Health.

218. The Committee agreed that, in accordance with the agreement reached at the forty-fourth session of the Scientific and Technical Subcommittee, in 2007 (A/AC.105/890, annex I, para. 24), the symposium at the fifty-sixth session of the Subcommittee, in 2019, was to be organized by COSPAR on the topic "Space weather and small satellites".

## D. Report of the Legal Subcommittee on its fifty-seventh session

219. The Committee took note with appreciation of the report of the Legal Subcommittee on its fifty-seventh session (A/AC.105/1177), which contained the results of its deliberations on the items considered by the Subcommittee in accordance with General Assembly resolution 72/77.

220. The representatives of Austria, China, Germany, Indonesia, Japan, Pakistan and the Russian Federation made statements under the item. Statements were also made by the representative of Ecuador on behalf of the Group of 77 and China, and the representative of Argentina on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the agenda item were also made by other member States.

221. The Committee expressed its appreciation to Andrzej Misztal (Poland) for his able leadership as Chair during the fifty-seventh session of the Subcommittee.

222. Some delegations expressed the view that more effective and proactive efforts were needed to increase awareness that it is important to comply with international space law when implementing space activities and programmes. The delegations expressing this view also expressed the view that the Office for Outer Space Affairs and Member States should do more to foster cooperation and facilitate the sharing of knowledge and expertise in international space activities.

### 1. Information on the activities of international intergovernmental and non-governmental organizations relating to space law

223. The Committee took note of the discussion of the Subcommittee under the item entitled "Information on the activities of international intergovernmental and non-governmental organizations relating to space law", as reflected in the report of the Subcommittee (see A/AC.105/1177, paras. 48–65).

224. The Committee noted the important role of intergovernmental and international non-governmental organizations and their contribution to its endeavours to promote the development, strengthening and furtherance of understanding of international space law.

225. The Committee also noted that it was important to continue to exchange information among the Subcommittee and intergovernmental and international non-governmental organizations on recent developments in the area of space law. It endorsed the recommendation of the Subcommittee that such organizations should again be invited to the Subcommittee at its fifty-eighth session to report on their activities relating to space law.

### 2. Status and application of the five United Nations treaties on outer space

226. The Committee took note of the discussion of the Subcommittee under the item on the status and application of the five United Nations treaties on outer space, as reflected in the report of the Subcommittee (see A/AC.105/1177, paras. 66–79).

227. The Committee endorsed the decisions and recommendations of the Subcommittee and its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, which had been reconvened under the chairmanship of Bernhard Schmidt-Tedd (Germany) (see A/AC.105/1177, para. 79, and annex I, paras. 7, 8, 11 and 12).

228. Some delegations expressed the view that the Legal Subcommittee was the primary multilateral forum for States to pursue the progressive development of the legal regime and the global governance of outer space activities.

229. Some delegations expressed the view that new legal challenges arising from the continuous development of space science and technology, such as space resources exploitation, large constellations and space debris remediation, as well as the emergence of new space actors, had to be addressed on a multilateral basis.

230. Some delegations expressed the view that, although non-legally binding instruments had been a success in that they guided States in conducting their activities in outer space in a safe and secure manner, they should not replace treaties and custom as the valuable sources of international law that they are. The delegations expressing this view also expressed the view that the gradual development of international space law through binding treaties should be carried out within the Legal Subcommittee.

231. The view was expressed that the universality of the five United Nations treaties on outer space should be strongly supported and promoted, and that effective implementation of the treaties required broad adherence due to the increasing number of parties holding a stake in outer space activities.

232. Some delegations expressed the view that the guidance document envisioned under thematic priority 2 of UNISPACE+50 (Legal regime of outer space and global governance: current and future perspectives) and developed within the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, could offer valuable guidance to States wishing to become a party to the five United Nations treaties on outer space and could thus help to promote the universality of those treaties, greater adherence to them and the progressive development of international space law.

233. The view was expressed that the guidance document envisioned under thematic priority 2, once agreed, would contain a section addressing the interlinkages between the treaties, principles and other instruments under the legal regime of outer space and the guidelines on the long-term sustainability of outer space.

### 3. Matters relating to the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union

234. The Committee took note of the discussion of the Subcommittee under the agenda item on matters relating to the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of ITU, as reflected in the report of the Subcommittee (A/AC.105/1177, paras. 80–110).

235. The Committee endorsed the recommendations of the Subcommittee and its Working Group on the Definition and Delimitation of Outer Space, reconvened under the chairmanship of José Monserrat Filho (Brazil) (A/AC.105/1177, paras. 82–83, and annex II, para. 11).

236. Some delegations expressed the view that the absence of a consensus, despite lengthy debates, on a clear and universal definition and delimitation of outer space, was a matter of concern. The delegations expressing this view were also of the view that the definition and delimitation of outer space is a very important topic that should be kept on the agenda of the Subcommittee and that more work should be done to establish a legal regime applicable to airspace and outer space.

237. The view was expressed that the rationale for the delimitation of outer space and airspace at between 100 km and 110 km above sea level should be based on comprehensive scientific, technical, and physical information about the atmospheric layers, the maximum altitude that can be reached by aircraft capacity, the perigee of spacecraft and the Kármán Line.

238. The view was expressed that the legal regime for outer space was different from the legal regime for airspace in that the regime for airspace was guided by the principle of sovereignty. The geostationary orbit was an integral part of outer space because it was not subject to national appropriation by claim of sovereignty, by means of use or occupation or by any other means, including by means of use or repeated use.

239. Some delegations expressed the view that the geostationary orbit, a limited natural resource clearly in danger of saturation, needed to be used rationally and should be available to all States, irrespective of their current technical capacities. That would give States access to the geostationary orbit under equitable conditions, bearing in mind, in particular, the needs and interests of developing countries and the geographical position of certain countries, and taking into account the processes of ITU and relevant norms and decisions of the United Nations.

240. Some delegations expressed the view that the geostationary orbit was not subject to national appropriation by claim of sovereignty, by means of use, repeated use or occupation, or by any other means, and that its utilization is governed by applicable international law, including the Outer Space Treaty and ITU instruments and regulations.

241. Some delegations expressed the view that the utilization by States of the geostationary orbit on a "first come, first served" basis was unacceptable and that the Subcommittee should therefore develop a legal regime guaranteeing equitable access to orbital positions for States in accordance with the principles of the peaceful use and non-appropriation of outer space.

242. The view was expressed that there was a need for a comprehensive legal principle to guide the elaboration of a sui generis regime governing the utilization of the geostationary orbit.

243. Some delegations expressed the view that, in order to ensure the sustainability of the geostationary orbit and to assure guaranteed and equitable access to it for all nations according to their needs, in particular emerging spacefaring countries, it was necessary to keep the issue on the agenda of the Subcommittee and to explore it further by establishing working groups and legal and technical intergovernmental panels as necessary.

### 4. National legislation relevant to the peaceful exploration and use of outer space

244. The Committee took note of the discussion of the Legal Subcommittee under the item on national legislation relevant to the peaceful exploration and use of outer space, as reflected in the report of the Subcommittee (see A/AC.105/1177, paras. 111–118).

245. The Committee noted with satisfaction that some States members of the Committee continued to implement, or were considering initiating the implementation of, the recommendations on national legislation relevant to the peaceful exploration and use of outer space contained in General Assembly resolution 68/74.

246. The Committee agreed that the general exchange of information on national legislation relevant to the peaceful exploration and use of outer space allowed States to gain understanding of existing national regulatory frameworks and to share experiences on national practices, and that the results achieved under the agenda item were highly useful for both developing and developed States when establishing or improving their national regulatory frameworks.

247. Some delegations expressed the view that in its provision of technical and capacity-building assistance, the Committee should focus on member States that have identified a need for supplementary regulation through the exchange of information on best practices to improve their domestic laws.

### 5. Capacity-building in space law

248. The Committee took note of the discussion of the Subcommittee under the item on capacity-building in space law, as reflected in the report of the Subcommittee (see A/AC.105/1177, paras. 119–136).

249. The Committee endorsed the recommendation of the Subcommittee on this agenda item (see A/AC.105/1177, para. 136).

250. The Committee agreed that, to build the national capacity necessary to ensure that the increasing number of participants in space activities complied with international space law, international cooperation in research, training and education in space law was essential.

251. The Committee reaffirmed that the regional centres for space science and technology education, affiliated to the United Nations, played an important role in providing teaching and training opportunities in space law. The Committee noted that

the regional centres could be used to provide more opportunities for academic linkages with other institutes and universities, as appropriate.

252. The Committee noted that capacity-building in space law was a fundamental tool that should be enhanced through international cooperation. One delegation was of the view that greater support was needed from the Office and member States to foster both North-South and South-South cooperation to facilitate the sharing of knowledge and expertise in the field of space law.

253. The Committee welcomed with appreciation the upcoming first United Nations Conference on Space Law and Policy, co-organized with the Russian Federation. The Conference was to be hosted by the State Space Corporation "Roscosmos" in Moscow from 11 to 13 September 2018. The Committee noted that the Conference was a follow-up to the long-standing series of dedicated workshops held for more than a decade in cooperation with member States.

254. Some delegations expressed the view that capacity-building in space law had a direct impact on the objectives under UNISPACE+50 thematic priority 2, since capacity-building would encourage more States to apply for membership of the Committee and to ratify the space treaties.

255. Some delegations expressed the view that in its provision of technical assistance, the Committee should focus on member States that wished to develop their domestic law.

### 6. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space

256. The Committee took note of the discussion of the Subcommittee under the item on the review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, as reflected in the report of the Subcommittee (see A/AC.105/1177, paras. 137–144).

257. Some delegations expressed the view that there should be greater interaction and coordination between the Legal Subcommittee and the Scientific and Technical Subcommittee to ensure a comprehensive discussion of different aspects relating to the use of nuclear power sources in outer space, bearing in mind that the work of the two subcommittees should be complementary.

### 7. General exchange of information and views on legal mechanisms relating to space debris mitigation and remediation measures, taking into account the work of the Scientific and Technical Subcommittee

258. The Committee took note of the discussion of the Legal Subcommittee under the item on the general exchange of information and views on legal mechanisms relating to space debris mitigation and remediation measures, taking into account the work of the Scientific and Technical Subcommittee, as reflected in the report of the Legal Subcommittee (see A/AC.105/1177, paras. 145–179).

259. The Committee endorsed the decisions of the Subcommittee as reflected in its report (see A/AC.105/1177, para. 179).

260. The Committee noted with satisfaction that the endorsement by the General Assembly, in its resolution 62/217, of the Space Debris Mitigation Guidelines of the Committee was a crucial step in providing all spacefaring nations with guidance on ways to mitigate the problem of space debris, and urged all Member States of the United Nations to consider voluntary implementation of the Guidelines.

261. The Committee noted with satisfaction that some States had taken measures to enforce the implementation of internationally recognized guidelines and standards relating to space debris through relevant provisions in their national legislation.

262. The Committee agreed that States members of the Committee and international intergovernmental organizations having permanent observer status with the

Committee should be invited to further contribute to the compendium of space debris mitigation standards adopted by States and international organizations. They should do so by informing the Legal Subcommittee about any relevant legislation or standards they may have adopted or by updating any information they may have provided earlier, using the template provided for that purpose. The Committee also agreed that all other States Members of the United Nations should be invited to contribute to the compendium and encouraged those other States that had such regulations or standards to provide information on them.

263. Some delegations expressed the view that there was contention regarding the removal of space debris without prior consent or authorization of the States of registry. The delegations expressing that view underscored the importance of registering space objects and of placing the responsibility for decongesting the space environment on those actors responsible for proliferation of the debris.

264. The view was expressed that the Subcommittee should thoroughly analyse the views of member States on the necessity of developing regulatory frameworks for space debris mitigation, and that that work should be carried out in close coordination with the Scientific and Technical Subcommittee under the agenda item on the long-term sustainability of outer space activities.

265. The view was expressed that all States conducting space activities should behave in a responsible manner in order to maintain the safety and the sustainability of outer space activities.

266. The view was expressed that it was important to address all technical and legal issues related to space debris, such as space traffic management, active debris removal and the servicing of space vehicles orbiting the Earth.

## 8. General exchange of information on non-legally binding United Nations instruments on outer space

267. The Committee took note of the discussion within the Subcommittee under the item on the general exchange of information on non-legally binding United Nations instruments on outer space, as reflected in the report of the Subcommittee (see A/AC.105/1177, paras. 180–192).

268. The Committee noted with appreciation the compendium on mechanisms adopted by States and international organizations in relation to non-legally binding United Nations instruments on outer space made available on a dedicated web page of the Office.

269. The Committee invited States members of the Committee and international intergovernmental organizations having permanent observer status with the Committee to submit their responses to the Secretariat for inclusion in the compendium and to keep them updated.

270. Some delegations expressed the view that, although non-legally binding instruments had served to guide States and other actors in conducting their activities in outer space in a safe and secure manner, they should not replace treaties and custom as the valuable sources of international law that they are. Those delegations were also of the view that, although such instruments played an important role in complementing and supporting the United Nations treaties on outer space, they could not serve as a substitute for existing legally binding instruments, nor should they hinder the progressive development of international space law, which should be conducted by the Legal Subcommittee.

271. Some delegations reiterated the importance of the Committee's Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries as an instrument that promoted international cooperation with a view to maximizing the benefits of space applications for all States and called

on all spacefaring nations to promote and foster international cooperation on an equitable basis.

272. Some delegations expressed the view that the Committee should not only serve as a platform to encourage Member States to adhere to the five United Nations treaties on outer space, but in its provision of technical assistance and capacity-building should also focus on those Member States that have identified the need for supplementary regulation through the exchange of information on best practices to improve their domestic laws.

### 9. General exchange of views on the legal aspects of space traffic management

273. The Committee took note of the discussion of the Subcommittee under the item entitled "General exchange of views on the legal aspects of space traffic management, as reflected in the report of the Subcommittee" (see A/AC.105/1177, paras. 193–212).

274. The Committee endorsed the recommendation by the Legal Subcommittee to continue to consider the item, in particular in view of the increasingly complex and congested space environment due to the growing number of objects, the diversification of actors and the increase in activities in outer space, all of which increased the potential for collisions.

275. The view was expressed that before the Legal Subcommittee started deliberations on space traffic management, the Scientific and Technical Subcommittee should thoroughly analyse the technical issues involved, because only a well-sequenced and coordinated approach could ensure progress in space traffic management in the near future.

276. The view was expressed that space traffic management was closely related to the safety and security of space operations, and that space traffic management could be developed and its complexities addressed only through international coordination and decision-making within the framework of the United Nations.

### 10. General exchange of views on the application of international law to small-satellite activities

277. The Committee took note of the discussion of the Legal Subcommittee under the item entitled "General exchange of views on the application of international law to small-satellite activities", as reflected in the report of the Subcommittee (see A/AC.105/1177, paras. 213–228).

278. The Committee noted with satisfaction that the item continued to be on the agenda of the Subcommittee and agreed that its inclusion helped to address and raise awareness of issues relating to the use of small satellites by various actors.

279. Some delegations expressed the view that, in order to ensure the safe and responsible use of outer space in the future, it was important to include small-satellite missions, as appropriate, in the scope of application of international and national regulatory frameworks.

280. Some delegations expressed the view that the existing legal regime on outer space ensured the safety, transparency and sustainability of operations involving small-satellite activities and that no ad hoc legal regime or other mechanism should be created that might impose limitations on the design, construction, launch and use of space objects.

281. The Committee noted that the questionnaire on the application of international law to small-satellite activities (see A/AC.105/1177, annex I, para. 8 and appendix II) had been useful in guiding discussions and deliberations under the agenda item.

## 11. General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources

282. The Committee took note of the discussion of the Subcommittee under the item entitled "General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources", as reflected in the report of the Subcommittee (see A/AC.105/1177, paras. 229–265).

283. Some delegations expressed the view that there was a need to further develop a common understanding of the principles relevant to the utilization of space resources set out in the five United Nations treaties on outer space through a multilateral process.

284. The view was expressed that all stakeholders, including both government and private actors, should closely cooperate so that future activities in exploration, exploitation and the utilization of space resources would be developed in a proper and practical manner as well as in accordance with international law.

285. The view was expressed that the discussions taking place in the Legal Subcommittee to formulate an international regulatory regime for activities in the exploration, exploitation and utilization of space resources should be supported.

286. The view was expressed that developing a regulatory regime for the exploitation of space resources was the right of the international community as a whole and that any unilateral approach was likely to raise uncertainty over the validity and application of international law.

287. The view was expressed that an international regime for the exploitation of space resources should be developed within the Committee and its subcommittees, thereby taking into account the interests of all States irrespective of their degree of economic or scientific development, while paying due regard to the investments of individual States and private companies.

288. The view was expressed that a working group on the exploration, exploitation, and utilization of space resources should be established under the Legal Subcommittee in order to fully explore this issue taking a multilateral approach.

## 12. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fifty-eighth session

289. The Committee took note of the discussion of the Subcommittee under the item on proposals to the Committee for new items to be considered by the Legal Subcommittee at its fifty-eighth session, as reflected in the report of the Subcommittee (see A/AC.105/1177, paras. 266–273).

290. On the basis of the deliberations of the Legal Subcommittee at its fifty-seventh session, the Committee agreed that the following substantive items should be considered by the Subcommittee at its fifty-eighth session:

*Regular items*

1. Adoption of the agenda.
2. Statement by the Chair.
3. General exchange of views.
4. Information on the activities of international intergovernmental and non-governmental organizations relating to space law.
5. Status and application of the five United Nations treaties on outer space.
6. Matters relating to:
   (a) The definition and delimitation of outer space;

(b) The character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union.

7. National legislation relevant to the peaceful exploration and use of outer space.

8. Capacity-building in space law.

*Single issues items for discussion*

9. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.

10. General exchange of information and views on legal mechanisms relating to space debris mitigation and remediation measures, taking into account the work of the Scientific and Technical Subcommittee.

11. General exchange of information on non-legally binding United Nations instruments on outer space.

12. General exchange of views on the legal aspects of space traffic management.

13. General exchange of views on the application of international law to small-satellite activities.

14. General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources.

*New items*

15. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fifty-ninth session.

291. The Committee agreed that the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space and the Working Group on the Definition and Delimitation of Outer Space should be reconvened at the fifty-eighth session of the Legal Subcommittee.

292. The Committee endorsed the agreement reached by the Subcommittee that the International Institute of Space Law and the European Centre for Space Law should again be invited to organize a symposium, to be held during the fifty-eighth session of the Subcommittee (see A/AC.105/1177, para. 272).

## E. Space and sustainable development

293. The Committee considered the agenda item entitled "Space and sustainable development", in accordance with General Assembly resolution 72/77.

294. The representatives of Canada, Chile, France, Germany, India, Indonesia, Italy, Japan, Pakistan, the Russian Federation, South Africa and the United States made statements under the item. During the general exchange of views, representatives of other member States also made statements relating to the item.

295. The Committee heard the following presentations under the item:

(a) "UAE space policy alignment with long-term sustainability", by the representative of the United Arab Emirates;

(b) "Italian Space Agency's survey to contribute to the achievement of the Sustainable Development Goals", by the representative of Italy;

(c) "Japan's contribution to disaster management in the Asia and the Pacific region through international cooperation by applying Global Satellite Mapping of Precipitation (GSMaP)", by the representative of Japan;

(d) "Global antenna-sharing project for achieving Sustainable Development Goals", by the observer for UNISEC-Global.

296. The Committee also heard under this item a presentation entitled "Enhancing existing capacity-building partnerships and forging new ones", delivered by the Executive Director of the African Regional Centre for Space Science and Technology Education — in English Language, affiliated to the United Nations.

297. The Committee acknowledged the significant role of space science and technology and their applications in the implementation of the 2030 Agenda for Sustainable Development, in particular for the Sustainable Development Goals; in the realization of the Sendai Framework for Disaster Risk Reduction 2015–2030; and in the fulfilment by States parties of their commitments to the Paris Agreement on climate change.

298. The Committee noted the value of space technology and applications, as well as of space-derived data and information, to sustainable development, including by improving the formulation and subsequent implementation of policies and programmes of action relating to environmental protection, land and water management, urban and rural development, marine and coastal ecosystems, health care, climate change, disaster risk reduction and emergency response, energy, infrastructure, navigation, seismic monitoring, natural resources management, snow and glaciers, biodiversity, agriculture and food security.

299. The Committee took note of the information provided by States on their actions and programmes aimed at increasing awareness and understanding in society of the applications of space science and technology for meeting development needs.

300. The Committee noted the continued role played by the International Space Station in education and outreach to educational communities worldwide, as well as the efforts of Member States to advance science, technology, engineering and mathematics education.

301. The Committee noted with satisfaction the large number of outreach activities carried out at the regional level to build capacity through education and training in using space science and technology applications for sustainable development. The Committee noted with appreciation the role played in space-related education by the regional centres for space science and technology education, affiliated to the United Nations.

302. The Committee noted with satisfaction the increasing cooperation between advanced spacefaring nations and emerging spacefaring nations aimed at enhancing space technology, building capacity and increasing access to space for emerging spacefaring countries, such as the collaboration between JAXA and the Office for Outer Space Affairs on KiboCUBE and the establishment by the Italian Space Agency of an international centre for space education for Africa in Malindi, Kenya.

303. The view was expressed that space science and technology and their applications held immense potential to provide benefits to both developed and developing countries and were key drivers in supporting the attainment of the Agenda 2063 of the African Union and the Sustainable Development Goals of the 2030 Agenda for Sustainable Development, and consequently it was important to ensure that the upcoming "Space2030" agenda was inclusive.

304. The view was expressed that the Committee should continue to create opportunities to assist Member States in enhancing their capacities and institutional cooperation relating to the use of space technology for sustainable development at various levels of cooperation, and that the support of the international community was needed in providing technical support to developing countries, adequate resources for the transfer of knowledge and capacity-building relating to space technology.

305. The view was expressed that the International Charter on Space and Major Disasters, initiated on the occasion of UNISPACE III and currently implemented by 17 space agencies, had provided major assistance to populations affected by disasters.

## F. Spin-off benefits of space technology: review of current status

306. The Committee considered the agenda item entitled "Spin-off benefits of space technology: review of current status", in accordance with General Assembly resolution 72/77.

307. The representatives of India, Pakistan, South Africa and the United States made statements under the item.

308. The publication *Spinoff 2018*, submitted by the National Aeronautics and Space Administration (NASA) of the United States, was made available to the Committee. The Committee expressed its gratitude to NASA for its *Spinoff* publication series, which had been made available to the delegations every year since the forty-third session of the Committee, held in 2000.

309. The Committee agreed that spin-offs from space technology constituted a powerful engine for technological innovation and growth in both the industrial and service sectors and that spin-offs had helped to improve public service delivery through modern communications infrastructure and to open new avenues of scientific and technological innovations, and had enabled sustainable growth in the global space industry. It also agreed that spin-offs could be applied to achieve social and economic objectives and the Sustainable Development Goals.

310. The Committee took note of the information provided by States on their national practices regarding spin-offs from space technology involving various actors, including from the private sector and academia, that had resulted in the introduction of strategies for the management of regional economic development.

311. The Committee took note of innovations in numerous scientific areas, such as health, medicine, the environment, education, communication, transport, dentistry, safety, biology, chemistry and materials science. It further took note of practical applications for society, such as the use of enhanced robotics in medicine and of colour photometry to monitor water levels for the benefit of agriculture, and the use of enhanced technologies to reduce energy consumption, to improve techniques in lubrication, cutting and drilling, and to facilitate resource exploration, infrastructure improvements, firefighting, geographical positioning, navigation and the tracking of search and rescue personnel.

312. The Committee noted that Governments had continued to develop national policies directed specifically at disseminating space technologies and actively promoting spin-offs by streamlining licensing and procedures to protect intellectual property in order to facilitate and support the market entry of products derived from space technology by start-up companies.

313. The Committee agreed that the use of spin-offs from space technology should be further promoted because they advanced economies through the production of innovative technologies, thereby improving the quality of life.

## G. Space and water

314. The Committee considered the agenda item entitled "Space and water", in accordance with General Assembly resolution 72/77.

315. The representatives of Canada, France, India, Indonesia, Japan, Nigeria, Pakistan and South Africa made statements under the item. During the general exchange of views, other member States also made statements relating to the item.

316. The Committee heard the following presentations under the item:

(a) "Water from space: a Chilean perspective", by the representative of Chile;

(b) "UNESCO World Water Quality Portal powered by satellite remote sensing", by the representative of Germany.

317. In the course of the discussion, delegations reviewed water-related cooperation activities, giving examples of national programmes and bilateral, regional and international cooperation.

318. The Committee noted that water and related issues were becoming one of the major concerns of humankind. The Committee also noted that to attain the Sustainable Development Goals it was important to make use of space technologies and applications, as well as of the practices and initiatives made possible through the space-borne observations of water.

319. The Committee noted that a large number of space-borne platforms addressed water-related issues and that space-derived data were used extensively in water management. The Committee also noted that space technology and applications, combined with non-space technologies, played an important role in addressing many water-related issues, including the observation and study of oceans and coastal aquifers, global water cycles and unusual climate patterns, the mapping of watercourses, aquatic weeds and algal blooms, the rehabilitation of water systems, the monitoring of glaciers, the estimation of snowmelt run-offs, the planning and management of reservoirs and irrigation projects, the monitoring and mitigation of the effects of floods, droughts and cyclones, the management of conventional and non-conventional water resources, including fossil groundwater, the reuse of agricultural drainage water, the desalination of sea and brackish water, the reuse of municipal wastewater, the harvesting of rain and the improvement of the timeliness and accuracy of forecasts.

320. Some delegations expressed the view that climate change had become a crucial issue for stable water management, as climate change had caused serious droughts and water-related disasters globally.

## H. Space and climate change

321. The Committee considered the agenda item entitled "Space and climate change", in accordance with General Assembly resolution 72/77.

322. The representatives of Brazil, Canada, France, India, Japan and the United States made statements under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

323. The Committee underscored the importance of continued commitment by the global community to tackling climate change as that was one of the most pressing issues for humankind and the Earth that adversely affected large segments of the world population, and emphasized the growing value of space-based technology in providing critical climate data to better understand and mitigate climate change and to monitor implementation of the Paris Agreement.

324. The Committee noted that space-based observations could contribute to the understanding of climate change through the monitoring of essential climate variables, and took note of the benefits of the use of Earth observations to track changes in sea level, carbon dioxide concentrations, sea ice depletion and terrestrial snow mass, and to gather data on remote areas such as deserts, oceans, the polar caps and glaciers.

325. The Committee noted the usefulness of satellite observations and Earth observation applications, and noted that an integrated perspective on the changing

environment of the Earth required combining and complementing space-derived data with ground-based, in situ observations (ground-based and sea-based observations).

326. The Committee also noted that global efforts to monitor climate change would benefit from the incorporation of open data policies, Earth observation applications that transform raw data into information of critical importance to people and societies, and the sharing of data and information with the most vulnerable regions of the world.

327. The Committee noted the importance of bilateral partnerships in climate change-related activities in the area of Earth observation, such as the efforts undertaken by France and India to better understand the life cycle of convective systems in tropical regions; the France/Israel "Vegetation and environment monitoring on a new microsatellite" mission (Venμs mission) to track the cycle of vegetation and the impact of climate change on vegetation; the upcoming CNES/DLR Merlin mission to track methane emissions; the upcoming CNES/UK Space Agency MicroCarb mission to map carbon dioxide sources; and the NASA/DLR/ESA collaboration to track the Earth's water movement and to extend the data series related to the Gravity Recovery and Climate Experiment mission (GRACE).

328. The Committee further noted a number of space programmes at the national level that placed high priority on building, launching and operating Earth-observation satellite systems to track the manifestations and effects of climate change.

329. The Committee noted that it was important to support international cooperation in the use of Earth observation, including long-established organizations such as WMO, CEOS, the Coordination Group for Meteorological Satellites, the Global Climate Observing System and the Group on Earth Observations.

330. The Committee noted that the Space Climate Observatory, an initiative launched by CNES and agreed upon by a number of space agencies in the declaration entitled "Towards a space climate observatory", adopted at the One Planet Summit held in Paris on 11 December 2017, would allow for the rational use of space-based data to monitor the state of the Earth and that at that Summit, space agencies and the Office for Outer Space Affairs had been invited to contribute to its development.

331. The view was expressed that there was a relationship between space weather and climate change, as space weather was an important issue with regard to the long-term sustainability of outer space activities and posed a threat to the terrestrial and space infrastructure necessary for the proper functioning of the technologies currently used by society, including for Earth observation satellites and their use for monitoring climate change.

## I. Use of space technology in the United Nations system

332. The Committee considered the agenda item entitled "Use of space technology in the United Nations system", in accordance with General Assembly resolution 72/77.

333. The representatives of India, Indonesia and Nigeria made statements under the item. During the general exchange of views, further statements relating to the item were made by representatives of other member States.

334. The Committee welcomed with appreciation the report of the Secretary-General on coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2018–2019 — a United Nations that delivers (A/AC.105/1179). The Committee welcomed the focus of the report on reinforcing synergies in efficiency measures in the use of space science, technology and applications within the United Nations system in support of global development.

335. The Director of the Office for Outer Space Affairs, in her capacity as the Chair of UN-Space, made a statement informing the Committee about the thirty-seventh session of UN-Space, held in Geneva in August 2017. In that regard,

the Committee took note of the report of UN-Space on its thirty-seventh session (A/AC.105/1143).

336. The Committee noted that in line with the agreement of UN-Space made at its thirtieth session, held in Geneva in March 2010 (A/AC.105/960, paras. 11 and 14), UN-Space had reviewed its reporting structure and agreed that reports of the Secretary-General on the coordination of space-related activities within the United Nations system and special reports of UN-Space should continue to be issuedin alternating years. The Committee also noted the agreement of UN-Space that the focus of its special report to be presented to the Committee at its sixty-second session, in 2019, would be decided at the thirty-eighth session of UN-Space, in 2018.

337. The Committee took note of the agreement of UN-Space to organize a workshop, to be held in New York in the second half of 2018, to consider public/private partnership models and cooperation with the private sector. The Committee noted the plans of the Office for Outer Space Affairs to organize the workshop in conjunction with the consideration of the item on international cooperation in the peaceful uses of outer space by the Special Political and Decolonization Committee of the General Assembly.

338. The Committee noted with satisfaction that the thirteenth open session of UN-Space, entitled "The transformative potential of space technology for development: approaches and opportunities in the United Nations system", was held on 24 August 2017. The session was moderated by the Director of the Office for Outer Space Affairs and featured the following panellists: Assistant Director-General for General Management, in charge of the Health Systems and Innovation cluster of WHO; Director of the United Nations Office for Disarmament Affairs, Geneva Branch, and Deputy Secretary-General of the Conference on Disarmament; Chief of the Space-based Observing System Division, Space Programme Office, WMO; Acting Head of the Space Services Department, Radiocommunication Bureau, ITU; and the representative of the executive secretariat of ICG.

339. The Committee noted that UN-Space open sessions, including the UN-Space high-level panel entitled "United Nations: reinforcing synergies for UNISPACE+50 and beyond" held on 21 June 2018 as part of the UNISPACE+50 high-level segment, provided an opportunity for member States to better understand the work of participating United Nations entities. The Committee took note of the joint statement of UN-Space issued in connection with that high-level panel (A/AC.105/2018/CRP.24).

340. The Committee noted with appreciation the increasing bilateral cooperation of the Office for Outer Space Affairs within the United Nations system, including with ICAO through a series of aerospace symposiums; with the United Nations Development Programme through a memorandum of understanding for increased use of space technology for sustainable development; with the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) through an expert meeting on space for women held in New York in October 2017; and with the Office for Disarmament Affairs through the holding on 12 October 2017 of a joint panel discussion by the Disarmament and International Security Committee (First Committee) and Special Political and Decolonization Committee (Fourth Committee) of the General Assembly.

341. The Committee noted with satisfaction the action taken by the Economic and Social Commission for Asia and the Pacific to adopt a plan of action for space applications for the Asia-Pacific region for the period 2018–2030.

342. The Committee took note with satisfaction of the large number of outreach activities carried out at the regional level for building capacity through education and training in using space science and technology applications for sustainable development. The Committee noted with appreciation the role played in space-related education by the regional centres for space science and technology education, affiliated to the United Nations.

343. The view was expressed that the Office for Outer Space Affairs should contact member States through their permanent missions to the United Nations in Austria, to call for more support by member States for the regional centres.

344. The Committee took note of the cooperative efforts by Member States and United Nations entities to promote the use of space technology, including in drought, land degradation and desertification monitoring and in disaster risk reduction and emergency response operations, in order to resolve global issues.

345. The Committee requested the Office for Outer Space Affairs to further promote, through United Nations entities, the increased practical application of space science and technology for development in view of the catalytic role that they could play in the implementation of the 2030 Agenda for Sustainable Development.

## J. Future role of the Committee

346. The Committee considered the agenda item entitled "Future role of the Committee", in accordance with General Assembly resolution 72/77.

347. The representatives of China, Indonesia, Israel and the Russian Federation made statements under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

348. The Committee agreed that it served, together with its two subcommittees, and supported by the Office for Outer Space Affairs, as a unique common platform for promoting international cooperation in the exploration and peaceful uses of outer space on a global scale.

349. The view was expressed that the review of principles and norms of international law could be decisive in shaping a common understanding about the future regulation of space activities and the arrangements that would be a real help in meeting new challenges in outer space. However, the Committee was yet to start actual work in that regard. This illustrated how the Committee was losing its competitive edge while renowned national educational and research establishments were defining new trends in the interpretation of existing principles and norms and the development of new models of so-called global governance of outer space activities.

350. The view was expressed that the deeply contradictory situation of the Committee resulted from a lack of commitment to comprehending topical themes of practical significance to safety and security in outer space and to focusing attention on the connections between various aspects of safety and security. The delegation expressing that view was also of the view that safety and security in outer space was a matter relevant to all participants in space activities and to humankind as a whole, and that the Committee therefore bore a tremendous responsibility for arriving at comprehensive arrangements.

351. The view was expressed that it was important that the Committee and its subsidiary bodies coordinated their efforts to avoid duplication of work, given that they needed to enhance their common output. They should formulate a common agenda and further strengthen the governance role played by the Committee as a whole in promoting international cooperation and strengthening the rule of law in outer space activities. It was important to avoid the fragmentation of international space law and to ensure that the Committee properly addressed key matters, such as new legal issues pertaining to current and future outer space activities; the increasing activity of space actors, including non-governmental entities; and the strengthening of national and regional capabilities, notably through the regional centres for space science and technology education, affiliated to the United Nations.

352. The view was expressed that the Committee should adapt to new realities and preserve its position as the focal point for communication and interaction between States on matters relating to the regulation of space activities. At the same time, it

should find remedies for inefficient practices and be more proactive in addressing important issues on its agenda that relate, first and foremost, to the cross-cutting relationship between the safety and security of outer space activities.

353. The view was expressed that the Committee should remain a facilitator for coordination between countries and that the Committee and its subcommittees should therefore coordinate their efforts better. The Committee should address matters relating to the commercial activities of private actors, not least because regulatory frameworks and standards needed to be enhanced so that they better supported national space activities and protected long-term investments in the space sector.

354. Some delegations expressed the view that several measures to improve the organization of work of the Committee and its subcommittees should be thoroughly considered as part of strengthening the governance role of the Committee as a whole. It was of paramount importance to modernize the working methods of the Committee as an intergovernmental platform so that it would be in a stronger position to cope with the scientific, technical, policy and legal dimensions of outer space activities in the future.

355. The Committee noted that the deliberations on the future role of the Committee were closely related to the overall consideration of UNISPACE+50 and the development of a "Space2030" agenda. Further consideration should be aimed at strengthening the governance role of the Committee and its subcommittees, supported by the Office for Outer Space Affairs, and issues pertaining to the Committee's method of work should be assessed carefully in order to improve its overall work and output as an intergovernmental platform.

## K. Other matters

356. The Committee considered the agenda item entitled "Other matters", in accordance with General Assembly resolution 72/77.

357. The representatives of Austria, Canada, China, Costa Rica, France, Germany, Greece, Indonesia, Iran (Islamic Republic of), Italy, New Zealand, Romania, Saudi Arabia, South Africa, Spain, Switzerland, Turkey and the United States, made statements under the item. Statements were also made under the item by the representative of Nigeria on behalf of the Group of 77 and China, and by the representative of Argentina on behalf of the Group of Latin American and Caribbean States. The representative of Bulgaria made a statement on behalf of the European Union. The observer for SGAC also made a statement. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

### 1. UNISPACE+50 and the development of a "Space2030" agenda and implementation plan

358. The Committee considered the recommendation by the Legal Subcommittee that a working group should be established on the development of a "Space2030" agenda and implementation plan (see A/AC.105/1177, annex I, para. 12).

359. In view of the draft resolution entitled "Fiftieth anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space: space as a driver of sustainable development", contained in A/AC.105/L.313, endorsed by the Committee at the present session, the Committee decided to include on its agenda a new item entitled "'Space2030' agenda", to remain on the Committee's agenda until the sixty-third session of the Committee, in 2020.

360. The Committee agreed on the establishment of a working group under that item under the chairmanship of a representative of the Group of 77 and China, whose name would be communicated to the Secretariat as soon as practicable. The Committee also agreed that the working group would have two Vice-Chairs, namely Maria Assunta Accili Sabbatini (Italy) and Dumitru-Dorin Prunariu (Romania).

361. The Committee decided that the newly established working group would hold intersessional consultations the week of 8–12 October 2018 at the Vienna International Centre and that those consultations would be carried out within existing resources.

362. The Committee agreed that the working group would establish its workplan and method of work at those intersessional consultations.

363. The Committee requested the Secretariat to invite States members of the Committee to those intersessional consultations and also invite them to assign points of contact for the working group.

364. The Committee agreed on the inclusion on the agenda of the Committee a regular item, entitled "Space exploration and innovation", as recommended in the note by the Secretariat on thematic priority 1 of UNISPACE+50 (A/AC.105/1168).

### 2. Composition of the bureaux of the Committee and its subsidiary bodies for the period 2020–2021

365. Pursuant to the measures relating to the working methods of the Committee and its subsidiary bodies,[1] as endorsed by the General Assembly in its resolution 52/56, the Committee considered the composition of the bureaux of the Committee and its subsidiary bodies for the period 2020–2021.

366. The Committee noted that the Eastern European States had endorsed the candidature of Marius-Ioan Piso (Romania) for the office of Chair of the Committee for the period 2020–2021 (A/AC.105/2018/CRP.13).

367. The Committee noted that the African States had endorsed the candidature of Francis Chizea (Nigeria) for the office of First Vice-Chair of the Committee for the period 2020–2021 and that this information would be formally communicated to the Office for Outer Space Affairs after the conclusion of the sixty-first session of the Committee.

368. The Committee noted that the Latin American and Caribbean States had endorsed the candidature of Ricardo Gil Ochoa (Colombia) for the office of Second Vice-Chair/Rapporteur of the Committee for the period 2020–2021 (A/AC.105/2018/CRP.25).

369. The Committee noted that the Western European and other States had endorsed the candidature of Natália Archinard (Switzerland) for the office of Chair of the Scientific and Technical Subcommittee for the period 2020–2021 (A/AC.105/2018/CRP.18).

370. The Committee noted that the Asia-Pacific States had endorsed the candidature of Setsuko Aoki (Japan) for the office of Chair of the Legal Subcommittee for the period 2020–2021 (A/AC.105/2018/CRP.27).

### 3. Observer status

371. The Committee took note of the application of the European Union for permanent observer status with the Committee. The application and the relevant correspondence were before the Committee in conference room paper A/AC.105/2018/CRP.9.

372. The Committee decided to recommend that the General Assembly, at its seventy-third session, in 2018, grant to the European Union the status of permanent observer with the Committee.

373. With regard to the applications of non-governmental organizations for the status of permanent observer with the Committee, the Committee recalled its agreement at

[1] *Official Records of the General Assembly, Fifty-second Session, Supplement No. 20* (A/52/20), annex I; see also *Official Records of the General Assembly, Fifty-eighth Session, Supplement No. 20* (A/58/20), annex II, appendix III.

its fifty-third session, in 2010 (A/65/20, para. 311), that observer status would be granted to non-governmental organizations on a provisional basis, for a period of three years, pending information on the status of their application for consultative status with the Economic and Social Council; that the provisional observer status could be extended for an additional year, if necessary; and that it would grant permanent observer status to such non-governmental organizations upon confirmation of their consultative status with the Council.

374. The Committee took note of the application of the International Organization for Standardization (ISO) for permanent observer status with the Committee. The application and the relevant correspondence were before the Committee in conference room paper A/AC.105/2018/CRP.10. The Committee also noted that ISO had consultative status with the Economic and Social Council.

375. The Committee decided to recommend that the General Assembly, at its seventy-third session, in 2018, grant to ISO the status of permanent observer with the Committee.

376. The Committee took note of the application of CANEUS International for permanent observer status with the Committee. The application and the relevant correspondence were before the Committee in conference room paper A/AC.105/2018/CRP.11.

377. The Committee decided to recommend that the General Assembly, at its seventy-third session, in 2018, grant to CANEUS International the status of observer, on a provisional basis, for a period of three years, pending information on the status of their application for consultative status with the Economic and Social Council.

378. The Committee took note of the application of For All Moonkind for permanent observer status with the Committee. The application and the relevant correspondence were before the Committee in conference room paper A/AC.105/2018/CRP.12.

379. The Committee decided to recommend that the General Assembly, at its seventy-third session, in 2018, grant to For All Moonkind the status of observer, on a provisional basis, for a period of three years, pending information on the status of their application for consultative status with the Economic and Social Council.

380. In accordance with the request of the Committee at its fifty-sixth session, in 2013, the Secretariat had compiled information on the consultative status with the Economic and Social Council of non-governmental organizations having permanent observer status with the Committee (A/AC.105/2018/CRP.14). The Committee urged non-governmental organizations having permanent observer status with it that had not yet initiated the application process for consultative status with the Council to do so in the near future.

381. The view was expressed that it was important to include in the list of requirements for applications of non-governmental organizations the provision contained in paragraph 61 (h) of Economic and Social Council resolution 1996/31 stating that "an organization that applies for consultative status should attest that it has been in existence for at least two years as at the date of receipt of the application by the Secretariat. Evidence of such existence shall be furnished to the Secretariat".

## 4. Organizational matters

382. The Committee agreed to the multi-year workplan on the governance and method of work of the Committee and its subsidiary bodies, as recommended by the Scientific and Technical Subcommittee and Legal Subcommittee at their sessions in 2018 (A/AC.105/1167, annex I, paras. 16 and 17; and A/AC.105/1177, annex I, para. 9). The Committee decided, in that regard, that the work under the multi-year workplan be conducted under the current item of the Committee entitled "Future role of the Committee".

383. The Committee agreed that digital recordings also be used for the Scientific and Technical Subcommittee starting at its fifty-sixth session in 2019.

### 5. Draft provisional agenda for the sixty-second session of the Committee

384. The Committee recommended that the following items should be considered at its sixty-second session, in 2019:

1. Opening of the session.
2. Adoption of the agenda.
3. Statement by the Chair.
4. General exchange of views.
5. Ways and means of maintaining outer space for peaceful purposes.
6. Report of the Scientific and Technical Subcommittee on its fifty-sixty-session.
7. Report of the Legal Subcommittee on its fifty-eighth session.
8. Space and sustainable development.
9. Spin-off benefits of space technology: review of current status.
10. Space and water.
11. Space and climate change.
12. Use of space technology in the United Nations system.
13. Future role of the Committee.
14. Space exploration and innovation.
15. "Space2030" agenda.

    (Work under a multi-year workplan of the working group, to be established (see paras. 360–363))
16. Other matters.

385. The Committee noted the success of the joint panel discussion of the First and Fourth Committees of the General Assembly on possible challenges to space security and sustainability, held in New York in October 2017, and recommended that a similar panel discussion of the First and Fourth Committees, with the support of the Office for Outer Space Affairs and the Office for Disarmament Affairs, jointly, should be held in 2019.

## L. Schedule of work of the Committee and its subsidiary bodies

386. The Committee agreed on the following tentative timetable for its session and those of its subcommittees in 2019:

| | *Date* | *Location* |
|---|---|---|
| Scientific and Technical Subcommittee | 11–22 February 2019 | Vienna |
| Legal Subcommittee | 1–12 April 2019 | Vienna |
| Committee on the Peaceful Uses of Outer Space | 12–21 June 2019 | Vienna |